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International Division

Making Great Communities Happen

China Special Report

Volume 1: Interviews and Articles

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INTERPLAN

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American Planning Association
International Division

Creating Great Communities for All

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Jing Zhang, AICP
Editor-in-Chief

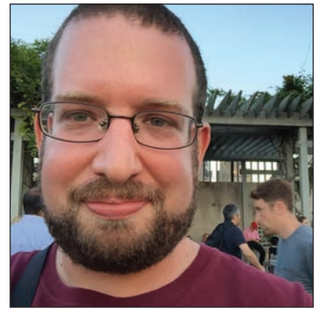
Connecting Planners Around the World

One of the challenges of the International Division is the breadth of our focus. We are trying to cover the whole world at once and define ourselves on that basis. As planners, however, we know that local context is everything. Real insight comes from getting to know a place, going deep into trying to understand it and learning the intricacies that make it special.

In that spirit, the American Planning Association International Division has published this Special China Edition of our Interplan Newsletter. While we, of course, cannot hope to capture the diversity of cultures and communities that make up this vast country, there is much to be gained by exploring its patterns of development, planning culture, and contributions to our profession. As you will see in the coming articles, the planning community in China is evolving, with new ideas being developed for improving the health, sustainability, and resilience of cities. Chinese ideas such as sponge cities have entered into the global parlance of planners, and Chinese cities will play a central role in the global economy for well beyond our lifetimes.

This Special Edition has been the work of a wide group of contributors, but chief among them is our new Vice-Chair for Communications, Jing Zhang. This has been a passion project for him, and I am stunned by the quality of what has been produced. In the coming months and years, the International Division will produce more of these Special Editions of Interplan. In the meantime, we hope to start a conversation around the practice of planning in China, the future of Chinese communities, and the lessons that we can take to our work.

Michael Kolber, AICP
APA International Division Chair



Michael Kolber, AICP

Michael is a planner for the NJ Department of Environmental Protection, where he focuses on coastal resilience planning and state plan endorsement. He served overseas as a Peace Corps Volunteer in Burkina Faso and as a Monitoring Specialist for the International Rescue Committee in the Democratic Republic of the Congo, and domestically for the NJ Department of Community Affairs, the United Way of Greater Union County, and the Manhattan Borough President's Office. Michael has an M.S. in Urban Planning from Columbia University. He currently serves as Chair of the American Planning Association International Division.

Lasting Partnership with China

Since China's economic reform in 1978, and especially since 1996, APA has been working closely on planning issues with central, provincial, and local governments in the People's Republic of China. APA officially offers consultation and advice to the People's Republic of China's Ministry of Urban and Rural Housing and Development, Ministry of Land and Resource, State Administration of Cultural Heritage, Ministry of Environmental Protection, State Administration of Cultural Heritage, State Administration of Foreign Experts Affairs and other agencies.

APA is a sister institution of the China Mayors Association, China Association of City Planning, China Society of Urban Planners, and China Land Society. APA has coordinated exchange programs and training projects for hundreds of Chinese cities, such as Beijing, Shanghai, Nanjing, Chongqing, Tianjin, Shenzhen, and Jinan.

APA has officially served the World Bank, United Nations Development Program, Asia Development Bank, as its China city and rural planning projects evaluator and programs coordinator.

Over 1,000 public officials have participated in APA's training program which hosts officials in U.S. cities providing talks and site visits by APA members. Both our members and the officials have expressed the value of these exchanges in better understanding of both countries' planning issues and systems.

Jeff Soule, FAICP

Jeff is the Director of Outreach and International Programs for APA. Overseas, Soule has served as special advisor to the Mayor of Nanjing, developing a strategy for revitalizing the city's historic neighborhoods and produced an innovative plan for a large site in Shanghai's Pudong New Area. Soule serves as a US delegate to the General Assembly for ICOMOS and advises governments regarding cultural conservation and is member of the US committee for Habitat III. Jeffrey represents APA at a varietyof international forums including the United Nations Habitat, UNESCO and is the Focal Point for ICOMOS on the World Urban Campaign.

Shenzhen Delegation Meets with Association of Bay Area Governments 2018

Put Understanding First

About China

I have neither been trained nor worked as a city planner in China. Because of that, I am as curious about Chinese city planning as many American planners may be. I lived in China until my late 20s, which allowed me to see China as many Chinese do. Based on my experience, I believe the following points can help us to understand China:

• Stability is the top political priority in China. To improve it, the government pursues changes that bring positive impacts on equity, sustainability, and economic prosperity. In planning, it means more community-driven processes and better plans.

• Unity and collectivism are core pillars of the social ideology in China. In general, policy makers and ordinary citizens genuinely embrace those values to an extent similar to how Americans cherish independence and individualism.

• Some Chinese follow religious doctrines, but conscience plays a more vital role in guiding people's actions in China. In addition, Buddhism, which technically is not practiced as a religion in China, is for peace and transcendence; Confucianism for kindness and obedience; and Taoism, my favorite, for naturalness and simplicity.

• Since the 2000's, the Chinese in general have been increasingly confident and proud of the socio-economic system of China, partly, if not all, resulting from the ever-improving living standards, and growing awareness of the richness of Chinese culture.

• In order to make sense, certain things have to be understood using Chinese terms. Those things include governance, the rule of law, press freedom, and individual rights. Otherwise, a context-insensitive value judgment could easily distort the original intent of an action or policy.

About the Report

The report attempts to answer two questions: 1) What is going on in China in terms of city planning? 2) How American planners can be helpful?

In addition, each interview has its focus: Planner education (Sisi Liang, Yan Song), wisdom and philosophy (Kongjian Yu, Hungchih Liu), real estate (Bing Wang), transportation planning (Yinghong Jiang), environmental protection (Jinghui Chang), decision-making process (Fei Yang), planning history (Qiang He), general work experience (Peter Calthorpe, Matthew Hartzell, William Aultman, Min Bu, and group interviews), general culture (Virginia Cutchin, Alexandra Stockdale).

Jing Zhang, AICP, PTP, LEED AP ND

Jing is a transportation planner at the Morgantown Monongalia MPO. He serves as the vice-chair of communications for the APA International Division and as a board member of the Association of Pedestrian and Bicycle Professionals. Jing holds a master degree in planning from Clemson University, a master degree in music and double bachelor degrees in music and English literature from Beijing Normal University.

Map of China

The Hu Line

The Hu Line is an imaginary straight line that runs through the Chinese territory, dividing China's population density. It was proposed by geographer Hu Huanyong (1901~1998) in 1935.

Population
About 94% of the population is in the southeastern part of China, which accounts for 43% of the country's land area.

Geography
The area southeast of the line is dominated by plains, water networks, hills, karst and Danxia landforms; the area northwest of the line is a world of grasslands, deserts and snowy plateaus.

Civilization
The eastern part is a land of farming and Confucianism. Here are the traditional Chinese that most people think of. The western part is nomadic or hunting. It is tribal, less Confucianist.

● Cities where interviewees/authors live

The Four Economic Zones

- The East
- The Northeast
- The Central
- The West

A Mirror of Planning and Urban History

Berkeley, CA. USA

Jayne Chang 张小搕

Jayne Chang recently graduated from UC Berkeley with a dual master's degree in Transportation Engineering and City Planning. She holds a Bachelor of Science degree from MIT's Department of Civil and Environmental Engineering. She aspires to decipher urban travel behaviors with quantitative models and innovative data sources. Motivated by her personal and professional experiences with public transportation, she has conducted research in demand modeling, transit usability and reliability, and emerging mobility services. She is a recipient of the Dwight David Eisenhower Transportation Fellowship in 2018 and has been awarded "Top Ranked Masters Fellowship Fellow" for her research in Mobility-as-a-Service implementation in the US.

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Over my two years as a planning student at UC Berkeley where many sociopolitical viewpoints have more or less converged under the wave of liberalism, the state of urban planning in China is one of the rare topics upon which fellow planners have trouble reaching agreement. A lament over Amtrak derailment would turn into a call of longing for the Chinese High Speed Rail and speedy infrastructure construction, while during the deadly California Camp Fire in late 2018, where Air Quality Index rose above 300 along with the smothering burning smell, the half-joking statement that we were actually in Beijing was indicative of certain negative stereotypes about Chinese cities. For this duality, China becomes a handy concept in a planner's mental model because it does not just help one reimagine the future, but also rationalizes planning decisions that prevent the consequences in China from happening in the US.

With that said, the delicate, context-dependent nature of urban planning makes it virtually impossible to make sound value judgment when comparing across countries, hence the inevitable divergence of opinions. Rather, one could draw insights from such comparisons by asking how one country could learn from another – and if not, what stands in the way. As China transitions from a planned economy to a market economy "with Chinese characteristics", it has learned to adopt market-based incentives in the realm of planning, from car license plate auction schemes aimed at congestion mitigation to the upcoming national emission cap-and-trade program.

The temporal aspect matters in mutual learning. As urbanization (and reactions to it) started occurring much earlier in the US, the long-term consequences that we observe today – recall Los Angeles' smoggy days in the 1970s – can be valuable data points for Chinese policymakers. Swift policy experiments allowed under the Chinese institutional environment, in contrast, are often a luxury for American planners and present an on-going learning opportunity.

In this Special Report, it should be no surprise that the reader will stumble upon topics that sound strikingly familiar to those in the US: the need for density and affordable housing, congestion mitigation, innovative P3s, enhanced environmental regulations, and the zigzagged path towards sustainability. However, one must consider the planning priorities and limitations in China, which could differ drastically from the ones in the US. Reliance on manufacturing and urbanization for economic growth and stability has been a dictating factor in much of the Chinese planning decision making, whereas American planning has been influenced by politics and ideological shifts.

In this light, I invite you to explore the richness and diversity of planning matters presented in this Special Report.

Beijing, China

Kongjian Yu 俞孔坚

Kongjian Yu. Professor of Peking University College of Architecture and Landscape. Recipient of a Doctor of Design Degree from the Harvard University Graduate School of Design, in 1995. His pioneering research focuses on the "ecological security patterns" and "sponge cities" that have been adopted by the Chinese government as the guiding theories for national land use planning, eco-city campaigns, and urban ecological restoration. He founded Turenscape in 1998, an internationally awarded firm with about 600 professionals. Through his works, Mr. Yu tries to reconstruct ecological infrastructure across scales and to define a new aesthetics based on environmental ethic. He has won numerous international awards for his ecologically and culturally sensitive projects, including twelve American Society of Landscape Architects Excellence and Honor Awards. He was awarded an Honorary Doctorate Degree by the Sapienza University of Rome in 2017 and elected Foreign Honorary Member of the American Academy of Arts and Sciences in 2016.

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The interview took place in Dr. Yu's office at the Turenscape headquarter in Beijing University's Science Park on December 17th, 2018. Dr. Yu was surprisingly friendly and forthright, reminding me of carefree conversations had on long-distance train rides around China. The interview started in Chinese and turned to English after 5 minutes.

Jing Zhang: What is your passion?

Kongjian Yu: My passion is to build urban landscapes that address the issue of survival and reveal the authentic beauty of nature. To accomplish that goal, we need to revive the ancient wisdom of agricultural civilization and adopt custom strategies that provide ecological services for our cities.

JZ: What is that ancient wisdom?

KJY: It's the wisdom of adaptation and survival: respect the law of nature to meet the needs of our daily lives. China has nearly 5,000 years of agricultural civilization. The science and art of cultivating plants and livestock enabled us to have permanent civilizations. During that extended period of time, Chinese people gained valuable experience in using ecological infrastructure-wetlands, forests, farms, grasslands, and rivers-to cope with climate changes, natural disasters, and a growing population. I call it "peasant wisdom." The wisdom is about survival. It is about a combination of function and beauty. China, even the world, could benefit from such ancient wisdom. One example is the idea of sponge cities, which is to use green infrastructure to mitigate the intensity of rainwater runoff by enhancing absorption capacities across a region. At the same time, those infrastructures could provide clean water, habitats for wildlife, and open spaces for local residents.

On the contrary, western countries have an extensive history of industrial civilization, characterized by the widespread use of powered machines and nonrenewable resources. It embraces the idea of using gray infrastructure, such as concrete dams, tanks, and pipes, to manage water in urban areas. Considering their natural environment, this method may provide a sound solution for some European cities.

China, however, should recognize that gray infrastructure is not omnipotent, and that it is wrong to abandon the knowledge and wisdom accumulated in 5,000 years of agricultural civilization. In the past 40 years, many Chinese mayors have pursued cookie-cutter solutions to solving problems posed by rapid urbanization. There should always be custom, context-sensitive solutions.

JZ: China and the U.S. have different political systems. What does that mean to planners?

KJY: Regardless of the difference, planning, in essence, is a top-down process. It is a product of governance, consisting of policies. I know many planners who are in favor of socialism for its efficiency in developing and implementing good plans and designs. I think China is in a position to demonstrate the efficiency of a centralized power to serve the long-term public interest, such as public transit, pollution mitigation, renewable energy, and sustainable infrastructures.

The American planning model is not universal; neither is the Chinese model. They both have their own strengths and weaknesses. American model has advantages in balancing powers and protecting the individual interest, but it could easily lose big goals and opportunities. The Chinese model, on the other hand, is better positioned to make great achievements through collective efforts. However, decision-making at policy level and planning are practically one process, which makes it difficult to navigate through mistakes and pitfalls. As for planners, they are professionals and should be willing and capable of serving the public interest, regardless of political difference, working with the authority to promote a sustainable, equitable, and livable urban environment.

Photo courtesy of Turenscape

JZ: You are a planner and a designer. How do you manage the two professions in your career?

KJY: Planning is about drawing a line, telling what and where. Design is about what it is like and how to make it happen. A crucial role of a planner is to identify the suitability of certain developments, seeing a larger picture and remaining future-oriented.

JZ: And what is negative planning?

KJY: Negative planning is an approach that prioritizes the integrity of a city's ecological infrastructure over urban development, similar to the idea of low impact development in the U.S. In China, the first step of conventional planning is to forecast population growth and then secure the amount of land recommended by national indices of land requirement per person. The land use layout is then decided based on supply. This process often ignores the capacity of the ecological system to maximize development opportunities. In other words, negative planning gives priority to the non-development by establishing a spatial pattern to secure ecological functions, which defines the layout of urban spaces.

JZ: What about the conflicting interests? Like housing and economic development.

KJY: That is smart growth, minimizing the impact on nature while satisfying the needs of humanity. The first step is to identify the red line between natural and human settlement, and then protect the natural environment within the red line because our lives depend on it. Negative planning is about promoting the health and security of land and serving the long-term interest of the public, instead of the interest of developers and the eagerness for development.

JZ: A pillar of your design philosophy is the "big feet" aesthetic. What should we know about it?

KJY: For a long period of time in Chinese history, young girls bound their feet so they could marry urban elites. Natural, "big" feet were associated with peasants and rustic life. While today they are considered grotesque and abused, small feet were elevated and praised at that time. Similar to bound feet, green spaces for a long time have also been shaped into artificial and decorative forms meant to satisfy the tastes of elites. As China becomes more urbanized and civilized, its vernacular landscape has often been ignored or diminished, deprived of its productivity and natural beauty. People have sacrificed ecological health and productivity for artificial beauty.

The tenet of the "big feet" aesthetic is to redefine what we think is pleasurable. Throughout Chinese history, farmers managed living landscapes. They adapted to natural disasters like floods, droughts, landslides, and soil erosion, and developed their abilities in field grading, irrigation, and food production. That landscape is beautiful. The beauty of the urban landscape is not derived from some mysterious forms but rooted in experience and communication between human beings and with nature.

JZ: In the hallway, I saw a paper pinned on the wall. It is about a new ruralism movement published in the bulletin of the Chinese Academy of Sciences. What is that about?

KJY: There is a new trend of pro-ruralism that brings urban residents into the villages.

农民智慧

Peasant Wisdom

"...I call it "peasant wisdom." The wisdom is about survival. It is about a combination of function and beauty. "

大脚美学

Big Feet Aesthetic

"The beauty of the urban landscape is not derived from some mysterious forms but rooted in experience and communication between human beings and with nature."

反规划

Negative Planning

"Negative planning gives priority to the non-development area by establishing a spatial pattern to secure ecological functions, which defines the layout of urban spaces."

The periphery of the park acts a border between city and nature. Photo courtesy of Turenscape

Moving to a rural area is not new. In the 1950s, Chairman Mao summoned young people to move to the countryside, partly because cities could not accommodate the increasing population at that time. It is a passive movement. Today, about 60%of the Chinese population are living in urbanized areas. Many of them realize that a city is not a paradise. When those people have the opportunity, they intend to move to the countryside where they can take advantage of fresh air, clean water, healthy food, and a slow pace of life, and where they can find their childhood memories. I call it the "new rustication movement." It is an advanced stage of urbanization in China.

While there are many similarities, this movement is substantially different from the suburbanization that took place in the U.S in the early and mid 20th century. The villages that these people are moving to are already built up and rich in their culture and historical context. In addition, these villages are often adjacent to high-speed railway stations and are far less dependent on private vehicles.

JZ: What are some of the problems with Chinese urbanization?

KJY: In a lot of cities, heedless urbanization has disrupted the ecological system in many ways, including the dysfunction of natural water systems, which are the blood vessels of the earth, and the loss of natural habitat and animal migration corridors. The dysfunction of ecological infrastructure costs us valuable ecological services that nature could provide, such as fresh water, clean air, disaster prevention, and numerous cultural values.

From a design perspective, many large, public spaces, such as landscape avenues, squares, and iconic buildings, were created primarily for monumentality and exhibition, to dress up urban surroundings. They were places without people, as they were not for accommodating people's daily lives and memories.

JZ: What do you think American planners can contribute to China?

KJY: There have been many foreign experts who visited China and provided good advice. I really appreciate that. American planners could help China avoid repeating mistakes that American cities have experienced, such as energy consumption, car dependence, urban sprawl, and exclusive zoning. Unfortunately, in most cases, Chinese decision-makers do not accept good advice from American experts. They are looking for a model to copy, like a city skyline, grand boulevard, or the suburban lifestyle. They do not realize that many of them are actually mistakes. For example, I worked with planners of the SOM, a renowned international consulting firm. They offered some great advice, such as small blocks, narrow streets, and livable neighborhoods, to the government, but their advice was ignored because decision-makers have a different view of what a city should look like. That view is wrong. That is why I wrote the book, "The Road to Urban Landscape: A Dialogue with the Mayors," to try to influence decision-making on the policy level.

JZ: What is your advice to American planners and designers who are interested in working in China?

KJY: In the first place, you must have a solid understanding of the governance and decision-making system in China and know how a plan or a design can be delivered in such a system. Second, you should spend some time in China, and preferably, live here. Learn enough about the lives of ordinary Chinese people. It is the only way that you can plan and design in harmony with the local cultures and

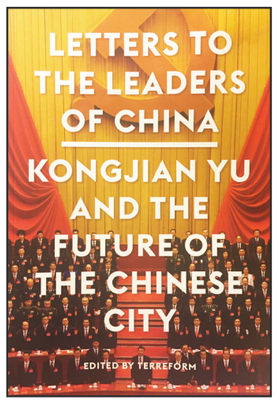
"Chinese planners have more authority over the planning process and have less constraint in their profession compared with their American counterparts. Therefore, it is imperative that planners in China, regardless of their nationalities, be truly knowledgeable, have more sense of safeguarding social equity, and execute their power with care."

environment. Finally, be a good educator when communicating with Chinese decision makers, who, in many cases, are Chinese mayors. Provide good advice and believe in the goodwill of the authority. While we are not here to change the decision making process in China, we shall strive to make use of this system to make good planning possible.

JZ: Is there anything I missed but is important to share?

KJY: One thing to add. City planning in the U.S. is a process with extensive public involvement, which is important. In China, planning is a top-down process. While public participation is encouraged, it is at an initial stage, and it has a long way to catch up in term of the sense of citizenship and general education on civic engagement. Because of that, Chinese planners have more authority over the planning process and have less constraint in their profession compared with their American counterparts. Therefore, it is imperative that planners in China, regardless of their nationalities, be truly knowledgeable, have more sense of safeguarding social equity, and execute their power with care. ■ *Dara Osher*

Photo courtesy of Turenscape



Please put an end to the brutalist hydraulic engineering projects that are now rampant in both rural and urban areas....the ultimate solution to water security and related environmental problems lies in ecological ideas and practices, and specifically in hydro-ecological infrastructure.

(from the letter to Xi Jinping, President of the People's Republic of China)

Rainwater is a blessing, not a curse...Rather than constructing a costly network of drainpipes, an economic and highly effective solution would be to build a green stormwater capture and storage system. Such a system could simultaneously meet goals of flood mitigation, rainwater utilization, groundwater recharge, and environmental improvement.

(from the letter to Guo Jinlong, Communist Party Secretary of Beijing)

Kongjian Yu

Beijing, China

Sisi Liang 梁思思

Sisi Liang. Dr. Liang is an associate professor at the planning department of School of Architecture, Tsinghua University. Her research interests are urban design and development, sustainable site planning, neighborhood planning, and community development. Dr. Liang's recent publications include 'Evaluation on Performance & Application of Climate Change Actions in American Cities,' and 'Second Phase of Beijing "2049": Historical Preservation and Integrated Planning of Beijing Inner City.' She has participated in planning and design activities on diverse projects in Beijing, Shanghai, Zhejiang, and Liaoning. Dr. Liang received her Ph.D. in City Planning at the School of Design, University of Pennsylvania, and earned both her Master in Architecture and Bachelor in Architecture from Tsinghua University.

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This interview took place at the cafeteria of the School of Architecture in Tsinghua University on December 17th, 2018. It was a pleasing conversation. Dr. Liang is more amiable than I expected from a Tsinghua professor. Besides planning, we also discussed the subtlety of translation between Chinese and English. The interview was conducted in Chinese.

Jing Zhang: Could you tell us about your job as an associate professor at Tsinghua University?

Sisi Liang: I teach urban design theory and workshop. My design studio classes meet twice a week, working on a variety of projects from street design to urban renewal. Students get the experience of project development from an initial idea to the final presentation. On the research level, I work with other professors as a team. By serving as a think tank to the government, the Planning Department at Tsinghua University provides a good platform to engage in real-world projects and make impacts on cutting-edge national policy development. Usually, several professors team together to undertake a project commissioned by the Ministry of Housing and Urban-Rural Development or the Ministry of Natural Resources. The project outcome could be adopted as national guidance or standard by the administration. My current researches focus on public space renewal. It is an existing area in today's China.

JZ: Is that a new trend in China?

SSL: Yes. It is a part of a national scheme that we call new-type urbanization, which includes rural vitalization and micro-urban improvement. China's GDP growth has been at 7% to 8% for the past 5 years, and urbanization is taking place at a rapid speed as people flock to cities and rural land is being transformed into urban land. We estimate 60% of the Chinese population will live in an urbanized area within the near future, and anticipate that the pace of urbanization will then generally slow down, reaching a stage of stable growth with emphasis on enhancing the quality of the existing urban environment. For planners, the focus is switching from planning for urban expansion to planning for current urban inventory. That includes enhancing the quality of public space, which is not easier than greenfield development, as it often involves different sectors of government: trees are under the department of parks and recreation, streets are under the transportation department, the street vendors are under urban management department. Each sector of administration has its interest in public spaces.

JZ: What should American planners know about Chinese city planning?

SSL: From a historical perspective, I would suggest reading Kao Gong Ji of the Rites of Zhou, artificers record, which is an ancient Chinese encyclopedia of technology. The book allows us to peek into the methods ancient Chinese used to build a city. It states that when architects were to build a city, they laid it out in a square shape. Each side was nine li (about 0.3 mile) with three gates. There were nine large streets in the city, the width of which is nine carriages. The left side of the palace (east) is the ancestral temple, and the right side (west) is the community. In front of the palace is the place where people worship, followed by the market. Cities made minor adjustments to this standard based on their natural environment, but the general layout has not changed. We can still sense the trace of it in Chang'an (present day Xi'an) of the Tang Dynasty (618–907), and Beijing of the Qing Dynasty (1636–1912). However, I would hesitate to call such a practice as planning, at least in regards to the market-economy based planning we know in the western urban theories.

One important thing American planners should know about today's China is the increasing emphasis on the quality of urban experience, which includes better public transit, better social service, better air quality, and better public places. In past decades, this was overshadowed by new constructions to accommodate the newly urbanized population. Now that cities are built out and infrastructures are in place we are looking at how to make better use of it. More planners are engaged in community planning, a bottom-up process driven by a close collaboration among residents, local leaderships, and planning and designing professionals. Shanghai and Shenzhen, I would say, are frontiers on this matter in China.

An important policy of recent years is rural revitalization. The central government encourages rural villages to create local mainstay industry as a sustaining engine for development and recognize it as the new "battlefield" in the century. Rural revitalization, in principle, is not merely to make rural villages more cosmetically appealing. It aims to provide better development opportunities for the local residents by improving its economic environment. So those people who left their hometown to big cities are more willing to come back to restart their lives. As planners, we help small towns and villages to identify its advantages and develop strategies to capitalize on those advantages. For example, we often look at historical heritage, natural landscape, special agriculture products, manufacturing skills, and transportation connections. Some villages have developed as distribution centers for ecommerce, while others became the destination of short escape trips for people living in nearby big cities.

A critical change that is happening now is national institutional reform. Specifically, it is to move the function of planning from the Ministry of Housing and Urban-Rural Development to the Ministry of Natural Resources. The planning that is moving to the Ministry of Natural Resources is space planning which draws a line between different land uses like agriculture, national parks, and urban development. The function of urban design and constructions are still under the Ministry of Housing and Urban-Rural Development. This change is tremendous. If we were in last year, I could confidently and clearly tell you the structure of urban planning in China, which including master plan, district plan, detailed implementation plan, zoning ordinance, and detailed guidance on architecture design. But, now the whole planning system is shifting. The law regulating urban planning will change. Accordingly the textbook used in planning schools needs to change. I cannot definitely say what will stay and what will go.

JZ: Could you talk more about urban renewal in China?

SSL: Well, in general, there are three types of urban renewal in today's China. The first type is close to what American planners call infilling development or urban redevelopment. It includes clearing out blighted areas, such as abandoned factories and construction sites, to free up space for economic development oppor-

Chengdu, Sichuan. Photo by Xiaofeng Luo from Pixabay

"We estimate 60% of the Chinese population will live in an urbanized area within the near future, and anticipate that the pace of urbanization will then generally slow down, reaching a stage of stable growth with emphasis on enhancing the quality of the existing urban environment."

tunities. Take Beijing as an example - because of the rising value of urban land, some businesses become non-compatible to its surrounding developments. Relocating businesses like farmer's markets, construction material markets, and furniture stores, away from the urban center reduces the cost of those businesses and creates opportunities for more capital intensive investment.

The second type is to improve the quality of public space: streets, squares, and transit stations. Quality applies to social service as well as physical appearance. This is the type we discussed at the beginning.

The third type is to upgrade the physical environment of existing communities, which involve renewal intensive community participation. A typical example is installing elevators to existing mid-rise residential units. Family apartments built in the last century often do not have elevators if it has less than seven stories. As we are entering an aging society, this arrangement imposes daily inconvenience for many residents. One solution is to install elevators in those buildings. It is not uncommon that local government subsidize this type of renovation to help senior residents. However, finance and designs are minor issues. The major challenge comes from building consensus among impacted residents. People living on the first and second floor are likely to reject such project, since it offers them less benefit and brings more nuisances, such as blocked lights and noise.

Chinese people are more inclined to emphasize the collective experience in public spaces. The boundary between public life and private life is sometimes quite blurry.

JZ: Anything we should know about planning schools in China?

SSL: Generally, there are two groups of planning schools in China, according to their academic emphasis. The one group of schools was established based on its architecture and design disciplines, including Tsinghua University, Tongji University, Southeast University, South China University of Technology, and Harbin Institute of Technology. The other group of schools is relying on its resources on geography, social science, or environmental science. Sun Yat-sen University, Beijing University, and Nanjing University belong to this group.

In recent years, a third type emerged, which was derived from the school of public administration, focusing on urban policies. This is a new but important trend. A typical example is the planning department of Renmin University. What we teach in classrooms is largely a reflection of what issues need to be solved in the society. As Chinese urbanization reaches a stage of quality growth, we expect that more schools will focus on policy-oriented planning, tackling the issues like housing and transportation at policy level.

JZ: Any advice to American planners who want to learn more about China or are interested in working in China?

SSL: The first is to have basic knowledge of the planning rules and the design standards in China. Otherwise, the plans and designs made are merely a wish. This includes traffic engineering standards, lighting specifications, and residential neighborhood design requirements. This information could also help foreign planners understand why a Chinese city looks like a Chinese city.

It is very necessary to understand some characteristics of Chinese urban life. For example, Chinese people are more inclined to emphasize the collective experience in public spaces. The boundary between public life and private life is sometimes quite blurry. This is a subtle point. In traditional Chinese neighborhoods, dedicated green spaces for civic gathering are very rare. So, where is public life to occur? The street is where people play chess. The farmer's market is where people chat. Plazas where children can play or adults can dance are far more effective than a large green field. People tend to combine socialization with functional activities such as buying groceries, exercising, and taking children outside, and even distributing flyers for neighborhood associations. Another interesting thing is the dining culture. A lot of networking take place at the dining table. This is true for business as well as social and personal matters.

Looking at another example, there is the hukou system. This is a household registration system designed to control the amount of rural-urban and urban-urban migration by limiting the migrant's access to resources such as public resources education and medical care in a city. It is not the same as in United States where you go to a city of your choice, you find a job, pay taxes, and start a life. Considering the enormous size of the Chinese population, such unconstrained relocation is not sustainable at its best. The capacity of a city to provide decent service to its residents is limited. The hukou system is not perfect. Some of its intended or unintended impacts are debatable, such as social and economic inequity. But we need a mechanism, whether it is one form or another, to control excessive population growth and heedless urban expansion.

It is not unusual for foreign planners to misjudge the scale of a community. Beijing, for example, has over 21 million people in its urban areas with a density of over 14,300 person per sq mile. The area within the 2nd ring road is of a similar size of Manhattan; and Beijing has 6 ring roads. A neighborhood plan in Beijing could be on a similar scale of a master plan for a small town in the United States. Also, it is a misconception that Beijing is the norm of Chinese cities. It is not. There are a lot of third, fourth, and fifth tier cities in less developed areas facing a variety of developing issues.

In the end, I would suggest that the China special issue provide some general information about China, such as the Hu Line, city tiers, dialects, major urban clusters, and the culture of different regions. ■ *Andy Read*

Editor's Note: Photos I

Changsha, 2011

A typical local street in a residential district in Changsha. Middle-rise housing units were built in 1990s with commercial use on the ground floor, including rice-noodle restaurants, neighborhood grocery stores and mini-pharmacies. Physical exercise equipment is along the street.

Changsha, 2011

Here is a neighborhood in Changsha developed in the 1990s. Sidewalks are over 20 feet wide. A bus stop is under the shade of trees. Shoe shining service cost about $1 (in 2010). Across the street is an elementary school. Kids are walking to the school.

Changsha, 2011

An arterial road in Changsha. There are bus turnouts, parallel parking, lanes shared by bicyclists and motorbike riders, vegetation space used as buffer, and tree lines. A high intensity activated crosswalk (HAWK) is installed to provide safer pedestrian crossing near a bus stop.

Shanghai, 2018

In a subway station in Shanghai. The machine in the photo took my ¥10 bill without issuing a ticket. I talked to a staff person at an entry. A maintenance guy showed up in less than 1 minute and fixed the problem.

Changsha, 2019

Here is in a newly developed area in Changsha, Hunan. The street provides ample space for pedestrians. Between the residential buildings and the sidewalk is linear green space with seats and shades.

Shanghai, 2019

This is at a bus stop in Pudong district, Shanghai. Realtime bus information is shown on the board. Passengers can use a smartphone to pay for a ticket in advance by scanning a QR code.

Hong Kong, China

Shenjing He 何深静

Professor Shenjing He joined the Department of Urban Planning and Design at the University of Hong Kong in January 2015. Prior to joining HKU, she was Professor and Assistant Dean at the School of Geography and Planning, Sun Yat-sen University (2008-2014); Visiting Scholar at the Harvard Graduate School of Design (2014); and Research Fellow at the School of Planning and Geography, Cardiff University (2006-2008). She has been the China editor for Urban Studies (SAGE) since 2012, and sits on the editorial board for the Journals of Urban Affairs, Geography Compass (urban), International Planning Studies, Area Development and Policy, and the Asian Geographer. Shenjing's research interests focus on urban redevelopment/gentrification, mobility policy, informal housing, rural-urban migration, and health geography. She has published more than one hundred journal articles and book chapters in both Chinese and English.

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The interview was held over the phone at 11:00 am on December 14, 2018 (Hong Kong Time). It was a delightful discussion on a variety of topics, from informal housing to health geography to life in Hong Kong. The interview was conducted in English with some key policy terms in Chinese.

Jing Zhang: The International Division did a survey. Rural-urban migration and informal housing in China are topics of interest. Could you tell us more about that?

Shenjing He: Well, some basic facts are probably well-known. The volume of migration is huge, it has seasonal peaks, and the concentration has been shifting from major metropolitans to smaller cities, and from coastal to inland areas.

There is a new trend that many rural migrants living in cities are moving back to their hometowns. They are not moving to rural areas, but to major cities in their own provinces to look for more promising employment or to start small businesses, and to live closer to their family members. The development of e-commerce and the improvement in transportation, especially public transit, has also facilitated this trend. On the other hand, lower level cities, including 4th and 5th level cities, have been improving public infrastructure and civic services so that local residents can live better locally without relocating to big cities far away. Chinese planners are paying attention to this changing pattern, and in the long run, it will be impacted by the nationwide rural revitalization policy proposed by the central government.

Informal housing in China exists in the form known as "Small Property Right Housing". By law, the collective land owned by villages cannot be used for urban housing development, but this has not stopped it from being built up for housing that takes up 20-30% of the total housing stock in the country.

While it is obviously not legal, the attitude of authorities on this matter is inconsistent. In many places, small property rights housing is publicly advertised, sold, and sustaining a booming housing market like it, in practice, provides affordable housing for migrants and low-income families.

It is worth noting that a lot of small property right housing in big cities is of very good quality and managed by professional companies for its maintenance. This kind of housing is very different from slums in South, Southeast Asian, and Latin America. On the other hand, informal rental housing, which we often called urban villages, are of comparably low quality. They are often overcrowded and have hidden safety concerns. We recently did a study on the pricing mechanism of small property right housing and found that, despite having no legal status or protections, there is a thriving and sophisticated market for it, the price of which varies systematically, depending on the developer, management team, and location.

JZ: It is often challenging for a rural-urban migrant family to start a life in big cities.

SJH: Yes. I think you are referring to the integration of newly urbanized citizens. In American history, there was a similar stage when industrialization brought large numbers of rural laborers into big cities. In China, the government started to realize the issue and developed a series of strategies to deal with it, such as the recently launched New Citizen Scheme. For example, the government is often involved in building affordable housing and providing subsidized rates for renters to attract high-skilled workers to their jurisdictions, which we call "talent housing," to boost the local economy. Noticeably, the government no longer uses the term "rural migrants"-- instead, "new urban citizens" is used.

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JZ: Could you tell us about the course on Chinese cities at the University of Hong Kong?

SJH: It is a common core course initiated and designed by my colleague. It is a general course open to freshmen in the whole university, introducing various aspects of Chinese cities, like economic development, social development, housing, transportation, and historical preservation. We discuss both the achievements of Chinese urbanization and the costs of those achievements, such as pollution, deterioration of the ecological system, and social inequity.

JZ: I noted that one of your interests is healthy geography. How is it applied to China?

SJH: It has been an emerging focus for collaboration among scholars in different disciplines. As planners, we are trying to understand the impact of the built environment on people's health, especially chronic diseases like high pressure, diabetes, and excessive obesity. What I'm doing currently is looking at the distribution of healthcare resources. We developed a system to measure the spatial pattern of high-quality hospitals distribution in relation to population and other urban factors.

In China, the resources for high-quality healthcare is highly uneven, with a concentration in the coastal areas and provincial capitals. In general, there are few good healthcare institutes in the inland areas of the country, in part because of its low urbanizaiton rate and low population density. Surprisingly, we identified many hospitals of excellent quality in major cities in the west, which were the legacies of charity hospitals established by westerners or military hospitals serving the public.

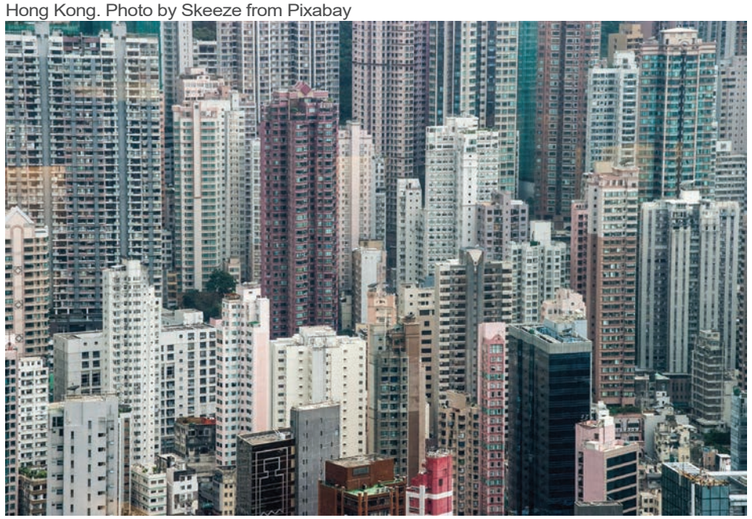
The next step is to identify the demand and assess the demand-supply relationship. By doing so, we convert a distribution question to a health equity question.

JZ: China and the United States have different political ideologies. How are these differences reflected in planning?

SJH: I think the major implication is the level of public participation. In mainland China, a lot of the planning processes are very top down rather than bottom up. Although it's not centrally planned, urban planning is more or less shaped by the leadership of a particular city or at the national level. The planning profession has improved in many ways, but the local leadership has a decisive role to play in deciding the general direction of urban planning.

I am not saying that planners' expertise is not important in such a system, but that the general directions remain at the hands of high-ranking government officials. An obvious example is Xiong'an, a new, state-level area located about 100 km southwest of Beijing, which is expected to relocate the non-political funcitons from Beijing, e.g. innovation and economic development, and serve as a development hub for Jingjinji economic triangle, which occupies an area of 100 square kilometers. Such an initiative was directly developed and operated by the

Hong Kong. Photo by Skeeze from Pixabay



central state government. This decision is controversial, as apparently it has disadvantages in resources, especially water.

Hong Kong has more or less followed the British system, in which statutory planning documents actually have legal standing. For instance, the type of land use assigned to a particular area or the floor-area ratio of development cannot be changed without going through very complex procedures.

JZ: What makes the greater bay area special in China?

SJH: Long story short, the bay area has two special administrative regions: Hong Kong and Macau. Under the "One Country, Two Systems" policy, both places are more like western cities than cities in mainland China. Hong Kong used to be a very important gateway city. Since China's opening up and reforms in the last few decades, Hong Kong has faced considerable competition from cities in the Pearl River delta area, like Guangzhou, Shenzhen, and Zhuhai. Cross-border competition and collaboration has thus become a tricky, complicated, and unique issue in the greater bay area.

In Hong Kong, and also in Macau, housing is a huge problem. Housing units are small and their quality is not so good. The Hong Kong government and the central government are actually encouraging cross-border migration from Hong Kong to adjacent cities like Shenzhen by creating job opportunities for young professionals who are more inclined to migrate.

Another pressing issue for Hong Kong is how to provide quality service to its aging population. Many senior citizens live in extremely small housing units and cannot get sufficient support from their family or professionals. The government encourages cross-border family care service from mainland China to Hong Kong to support elderly citizens in Hong Kong.

JZ: How is your life in Hong Kong?

SJH: You probably know that the pace of life in Hong Kong moves really fast. My mom actually told me that since I moved to Hong Kong, I walk so fast that she cannot keep up with me! I don't really have a lot of spare time. I have a young daughter. Usually, after she is asleep, I have to stay up to work until midnight almost every night. But I do try to save at least one day, especially Sunday, for her. We often spend that time going hiking. Hong Kong is a high-density city, very crowded. But you probably don't know that 40% of the land in Hong Kong has been set aside as country parks for people to visit. We also travel to Shenzhen and Macau. With the newly completed high-speed rail and Hong Kong-Macau-Zhuhai bridge, it's very easy to travel around in the greater bay area. ■ *Dara Osher*

Hong Kong. Photo by Skeeze from Pixabay

Tips for Learning Mandarin Chinese

Celia Shi 石慧

Dr. Shi received her Ph.D. in the College of Education and Human Services at West Virginia University (WVU). She received two master's degrees, one in Teaching English to Speakers of Other Languages (TESOL) from WVU and the other in Higher Education from Beijing Science and Technology University. After an eleven year-career as a business woman with world leading companies, Dr. Shi has returned to the teaching field since 2011. She has been teaching Mandarin Chinese at both college level and public school level in America for 8 years.

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Mandarin Chinese is the most frequently used language in the world. It is also regarded as the most difficult language for English speakers because of the sharp contrast between Mandarin Chinese and the Indo-European languages in terms of pronunciation, writing, and grammar. However, learning it can be manageable, even joyful, if learners can set off on the right foot. Here are a few tips for you.

The core Mandarin Chinese vocabulary is around 3000 characters. Additionally, most of these characters are composed of 300 basic characters. Therefore, starting with the basic characters is a wise step for learning Mandarin Chinese.

Mandarin Chinese is a tonal language, which means the change of the tone may change the meaning of the word. The pitch level of Mandarin Chinese is about 1.5 times wider than English—a quarter higher and a quarter lower. It also has four lexical tones. Pay attention to the tones when you start to learn pronunciation.

Chinese grammar is comparatively simple. It does not have tense variation, nor plural variation. Basically, grammar errors do not hurt oral communication as tones do. So ignore it!

Native and authentic input is critical for building up a good sense of a new language. Listening would be the first aspect. Find some reliable resources such as CCTV and feel free to frequently explore it for both language and cultural materials.

If possible, go visit China. Go to the local parks and play Taichi, a type of Chinese martial art for defense and health benefits, and Guangchang dance, the dance performed in squares, with native people. If you find you fall in love with Chinese cuisines, congratulations! Your Mandarin Chinese will be fluent earlier rather than later. Because there is no good translation for thousands of Chinese menus, you will have to learn Chinese.

Celia at Zhangjiajie national forest park, the home of the 'Avatar Mountains

Housing Affordability in Shanghai

Shanghai, China

Shengdi Chen 陈晟頔

Shengdi is a planning professional at Shanghai Urban Planning and Design Research Institute. She tackles challenges towards equity, urban sustainability, and a drive to make projects and decisions actionable. She recently completed a Master of Urban Planning degree at the NYU Wagner School of Public Service with a focus on housing and economic development. She is passionate about cities, housing, land use, and the use of planning as a tool to build and promote strong, inclusive, and equitable communities.

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Housing affordability is a crucial issue in urban China. In major cities like Shanghai, housing prices have surged over the past two decades since the Central Government reformed and commercialized residential units. Property speculations, a massive influx of migrants, and widespread wage stagnation have also contributed to the precipitous rise in housing costs in Shanghai, making the city unaffordable and unsustainable. Entrenched income and wealth inequality have made it nearly impossible for younger generations to afford to buy a home. The inadequate affordable housing supply has also led to the outflow of talent.

Residents of Shanghai face two primary barriers when trying to buy a home: soaring housing prices and stagnant wages. Shanghai's median income in 2017 was 7,132 yuan ($1,052) per month, or 85,582 yuan a year, whereas its housing price per square meter for the same year was about 51,854 yuan, or $715,000 for 1,000 square feet. According to these statistics, local property in Shanghai costs about 48.5 times the median annual salary in the city. For example, a 2-bedroom 1-bath apartment sized at 80 square meters (861 square feet) priced at 51,854 yuan per square meter costs about 4,148,320 yuan to buy ($611,920). Given Shanghai's median income of 85,582 yuan per year, that puts the House-Price-to-Income Ratio at 48.5, almost five times the ratio of the least affordable metropolitan area in the U.S. (Los Angeles at 9.6). The housing costs is outpacing and unsustainable.

Affordable housing for homeownership, Shanghai. Photo by Shengdi Chen

While homebuying speculation is rampant in China, with wealthy families and investors buying up homes and leaving them vacant, the families of the proletariat are stuck spending their lifetime earnings to buy a home to live in. This economic gap leads the public to fear that income inequality in the country will continue to increase, especially the economic divide between urban China and the rest of the country. This pattern can be seen in the young migrants moving to Shanghai from smaller cities and the countryside. Their parents back in their hometown may struggle to transfer economic and non-economic benefits to their children, and parental assistance for a down payment for a home in the city may be scarce. In addition to children being at a disadvantage if their parents cannot transfer wealth to them, they will find it comparatively hard to succeed in this larger social capital and put hopes on their offspring to move up the socioeconomic ladder into middle class status.

Even though the Central Government has been investing a large amount of money on constructing affordable housing (for homeownership) and low-rent housing since 2009, there is still an excessive need, and demand far outstrips the supply. Shanghai has a population of about 24.2 million. As of June 2018, 92,000 families, or 0.4% of the population, were living in affordable housing. There is an urgent need to increase the affordable housing supply.

With homeownership out of reach, many millennials choose to rent their apartment instead. Renting can be a good way to live while stocking away savings to buy a home. Renting also provides young people with flexibility and time to weigh their options before committing to buying a home.

Government intervention against home-buying speculation has caused the Shanghai property market to slow down its pace. Data from Anjuke shows that 2018 housing prices in Shanghai dropped 1.48% compared to the year before. At the time of writing this paper, the city's housing prices are continuing to decrease. Shanghai Mayor Ying Yong also made a promise at the annual session of the Shanghai People's Congress about sustaining the out-of-control housing market even as the economy slows down. In its latest released Shanghai Master Plan (2017-2035), the government has responded to the inadequate supply of affordable housing by proposing the construction of new affordable units and promoting a fair renting and home purchasing environment. The plan works towards Shanghai's goal of being a humanistic global city by exploring new models of sustainable development for the densely populated megacity.

Xintiandi Nanli, Shanghai, Photo by Shengdi Chen

Tianzifang No 3 Door, Shanghai, Photo by Shengdi Chen

Xintiandi, Shanghai, Photo by Shengdi Chen

Chapel Hill, NC. USA

Yan Song 宋彦

Dr. Song is a professor and the director of the Program on Chinese Cities (PCC) at the University of North Carolina at Chapel Hill. She is also the president of the International Association for China Planning. Song's current research projects also document the evolution of China's urban land and housing policies and urban spatial structure in the era of China's transition toward a market economy. Under her direction, the PCC conducts research and training to better understand the impacts of rapid urban growth on China's built and natural environments and to explore ways to make this process more equitable, transparent, and socially and ecologically sustainable. Dr. Song has served as a Research Affiliate at the National Center for Smart Growth at the University of Maryland and a Faculty Fellow at the Lincoln Institute of Land Policy. She has also served as a consultant on urban planning for the city government of Shenzhen, and a consultant on land use and transportation integration for Beijing Municipal Institute of City Planning and Design in China.

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This interview was held over the phone at 3:00 pm on January 22, 2019 (New York Time). It was a very engaging talk. We even discussed an analogy of practicing piano concerts and micro-urban renewal. The interview was conducted in Chinese.

Jing Zhang: Could you tell us about the course on Chinese city planning in the UNC at Chapel Hill?

Yan Song: We introduce Chinese planning to American students mainly in two ways. In general courses on American comprehensive planning, I use some Chinese cases to illustrate some concepts and to draw some contrast. We also have courses that are dedicated to Chinese planning, like planning studios which focus on a specific topic, such as smart cities and sponge cities.

In the lecture, I present the challenges that Chinese cities have in the process of urbanization and the strategies that China adopted to cope with those challenges. We discuss both the achievements and failures. There are a lot of successful lessons in China that American planners can learn, such as public transportation and green city development. Meanwhile, many failures in Chinese urbanization are the repeat of failures experienced in the west.

One key point that I try to help American students to understand is the intensity and scale of the urbanization in China. The intensity is shown in the speed and volume of development. The leadership is eager for changes, and when a project is supported by the local government, the implementation of a plan usually takes place in a very short term. The scale is about the size of the land and population. American students sometimes find it is difficult to appreciate the scales in Chinese urbanization. The population of a non-major city in China can easily reach millions, and major cities in a province often have over 5 million people in the urban area. For example, the Raleigh metropolitan area was named as a top fastest-growing area in the United States, with an estimated population slightly over 2 million. Our planning studio worked on a sponge city project for Jinan, the capital of Shandong province, which has a population of nearly 7 million.

JZ: what are keys for American planning student to understand China?

YS: Be aware that urban issues in China are often much more complicated than they appear. China is not simply a socialist country; it is also not a capitalist country. It heavily draws from a thousand-year history of feudalism. Based on that background, China has developed a very sophisticated bureaucratic system and many sectors have their interest in planning. In comparison to the United States, reaching a consensus amongst stakeholders is a complex affair. For example, an urban renewal project may involve property right issues. In the United States, it is a private and public ownership question. In China, it could involve collective ownership and small property right housing. To appreciate the complexity of urban issues in China requires the understanding of Chinese culture, policy, and politics. It is not an easy task even for Chinese planners.

Another key point is that policy-making in China holds many more uncertainties.

"Be aware that urban issues in China are often much more complicated than they appear."

"It is a top-down system, but it is a misconception that such a system is simple. In practice, local government often has great flexibility in implementing policies from the central government, which is shown in the process of adapting to the local context and addressing local priorities."

Chinese leaders embrace changes and are inclined to accept innovative ideas. Because of that, long-range planning sometimes is not reliable and short-term planning draws more attention, which often focuses on immediate actions and near-term strategies. Some consultants that I know work exclusively on developing implementation-oriented plans, instead of conventional master plans.

JZ: what is your advice to students who want to work in China after graduation?

YS: Each year, I have one or two students go to China to work as a planner. Some of them are Americans; some are Chinese studying in the United States. My general advice is: Master the American planning process. The value embedded in the U.S. planning process is universal. Although China has a more dynamic and unpredictable environment, it considers skills and methods used in American planning as invaluable.

JZ: Is it true that planning in China focuses more on physical planning?

YS: Yes, it is true, but as the rapid development slows down, the government is paying more and more attention to urban management and policies that will enhance the performance of existing infrastructure. To that extent, the experience of American planners on policy-oriented approaches is very useful.

JZ: Any tips for American planners who are to work with Chinese planners in China?

YS: I have organized several technical assistance programs between the two countries, and have gained some perspectives. First, the intensity of the work. The workload for Chinese planners is huge and working overtime is the norm. American planners often consider this as a difficult adjustment. Second, data needed for planning consultants (taxes, property lines, demographics) are not readily available, even the client is the government. These data are often public in the United States but are treated as confidential or sensitive in China.

A recent trend is using commercial big data, which may be helpful to planners to get quality data. Besides the two mentioned above, a more profound point is to take the time to learn and appreciate the complexity of urban issues in China, which, as I previously mentioned, often involves delving into a full spectrum of culture, socio-economy, policy, and politics.

JZ: Planning in China is a top-down system. So why is it so complicated?

YS: It is a top-down system, but it is a misconception that such a system is simple. In practice, local government often has great flexibility in implementing policy from the central government, which is shown in the process of adapting to the local context and addressing local priorities. The level of flexibility also varies, depending on particular cities. Sometimes, local authority modifies a policy to reflect local needs. Sometimes there is no clear guidance to implement a policy, and the local authority has to be creative on implementation.

JZ: Can you talk about urban planning in Shenzhen?

YS: Shenzhen is the pioneer of the reform movement, partly because of its strategic location. Its openness positions it as receptive to changes and many urban designers find it an ideal place to test new ideas. On the other hand, Shenzhen is among the highest-income cities in China. Affluent residents ask for a higher quality of life, such as more efficient transportation, a more pleasant environment, and a better place to play for everyone. Such requests stimulate demand for innovation in planning and design. Shenzhen is recently branded as a friendly city: friendly to children; friendly to the elders, friendly to visitors, friendly to migrants, and friendly to foreigners.

JZ: Anything else you would like to share with our readers?

YS: Two more things worth mentioning. First, conditions in different cities vary drastically with the variables of economic status, cultural background, and political environment. While this difference is obvious between the coastal area and inland provinces, it exists extensively among cities of similar population size and development stage. Successful strategies in one province may not apply in its neighboring province. Planners should be aware and adaptive to this challenge based on the geographic difference.

Second, we are in an exciting era of city planning. In the past few decades, China has undergone a fast-growth period, as reflected in the rise of large scale housing and commercial development, vast investment on infrastructures, and rapid growth of urban population. Now that the expansion is slowing down, it seems that the exciting stage has passed. In reality, it actually just started. The pace is transitioning from agitated to relaxed. The focus is now on refinement, that is, optimizing what we already have and putting urban issues under a microscope. There is more room for community involvement and quality management.

JZ: It is just like mastering a piece of music. After initial learning of the score, the real excitement is to work on its subtleties.

YS: Exactly. If a city is a piece of sculpture, we are about to refine the details to provide better experience to its audience. ■ *Lynn Abdouni*

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Dr. Bing Wang is Associate Professor in Practice of Real Estate and the Built Environment and faculty Co-Head for Master of Design Real Estate and the Built Environment at the Harvard University Graduate School of Design (GSD). Her published books include The Architectural Profession of Modern China (2011), Prestige Retail: Design and Development (2014), The Global Leadership in Real Estate and Design (2015), and Nexus: Field Studies in Real Estate, Planning, and Design (2005), and her forthcoming books include Understanding China's Real Estate Market: Development, Finance and Investment, and also Innovation Dynamics in Real Estate. She is on the Editorial Boards of the Journal of Sustainable Real Estate, the Journal of Planning Theory and Practice and Journal of German Real Estate. Dr. Wang bridges the fields of design and real estate and brings global experiences as an executive and principle of investment and development companies. She practices real estate and urban design in the US and China and has advised private organizations, government agencies and real estate companies in the US, China, and around the world. She is on the Steering Committee of Harvard China Fund, on the board of the Chinese Society of Urban Studies and an elected Board Director for the American Real Estate Society.

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The interview was conducted over the phone on December 12th, 2018 (Boston Time). It was the first interview for this China Special Report, and my first time ever to interview someone. Professor Wang was very knowledgeable and to the point. She was patient in helping me understand some real estate concepts during the interview. The interview was conducted completely in English.

Jing Zhang: In terms of real estate, how is China different from the U.S.?

Bing Wang: There are many differences, just as there are many similarities. The major difference results from the differentiated scales of market demand generated based on the respective stages of urbanization in two countries. China's urbanization rate increased from 17.9% in 1978 to 58% in 2017, and the urban population surged from 172 million to 813 million. Historically, many countries have experienced a boom on the real estate market during this phase of urbanization, so it is understandable that China has also had a long-lasting real estate boom. Even though real estate production has been slowing in China for the last two years, it still came with an annual built area of 1.6 billion square meters (17 billion square feet) in 2016 and 1.0 billion square meters (10.7 billion square feet) in 2017. This is the urbanization stage when the market has fundamental demands for new housing and infrastructure. The U.S., on the other hand, reached 70% of the urbanization rate in the 1960s and has been at a relatively stable stage in terms of urban expansion and population growth. The scale of their respective real estate market reflects the two different historical stages of urbanization of the two countries.

The second difference results from the dramatic differences in population density between the two countries and, accordingly, these densities generate different types of housing. While in the U.S. the American dream is to own a single-family house in the suburbs (except more recently we have seen a surge of residential markets in cities), high-rise multi-family condos are the mainstream residential types in China. In fact, since 2006, the Chinese government has limited the development of single-family houses and discouraged low-density residential developments with a FAR lower than 1.0. That being said, China currently boasts a home ownership rate of 90% while the rate in the US has remained below 65% in recent years.

Thirdly, the Chinese real estate industry is still comparatively young. The housing reform was initiated in 1994, and the country-wide commercialization of housing was only formalized in 1998. Since then, there has been a coexistence of various institutional and practice formats in the real estate industry. China has state-owned real estate companies, companies owned by various local level government entities, and privately owned real estate companies, among which there also exist real estate companies that are publicly listed in one of the stock exchanges (e.g. the Hong Kong Stock Exchange, the Shanghai Exchange, the Shenzhen Exchange, and even in the Exchanges here in the U.S.).

Given that real estate is a capital intensive industry, we should also note that the development of capital markets in China is nascent. China's capital markets are in their initial stages compared to those in the U.S. For example, while Real Estate Investment Trusts (REITs) were established in 1960 in the United States, China still doesn't have formalized REITs established in the capital markets. That is important as it significantly impacts the financing options available to real estate companies. On the surface, the quantity of buildings constructed in the past twenty years seems overwhelming, but the actual evolutional trajectory of the real estate industry is still at a very early development stage.

JZ: So, is there room for small or medium-sized developers in China?

BW: Yes. In fact, from the early 1980s to 2010, the market mainly consisted of small and medium-sized development companies. It wasn't until most recently, in the past three to five years, that we saw a consolidation emerging in the Chinese real estate industry and the large-scale real estate companies began to emerge and become more dominant.

JZ: What is the key to understanding the relationship between real estate and urbanization in China?

BW: This is a complex question, but two elements stand out as the key to highlight the relationship between real estate and urbanization in China. First, all urban land is owned by the state, and most of the land in the countryside is owned by collective communities in China. It is local governments that transfer rural land to urban land and then sell it to private developers for urban development and expansion. We call this process "land financed urbanization". Unlike the U.S., where property tax constitutes a large portion of local government revenue, China does not have property tax. The local government largely depends on the revenues generated from the process of transferring rural land to urban land to support public spending, such as infrastructure, public schools and hospitals. Land and its associated financing mechanism become indispensable and dominant in China's urbanization process.

The second point is that in China local governments coordinate closely with the central government and are generally granted enough flexibility in how they generate revenues and manage their fiscal policies in their own jurisdictions. Aligned with the principles of the central government, local government set up individualized real estate policies according to their specific market performances. This localized flexibility ensures accountability in policy making for local governments, which is a mechanism that is far more flexible and versatile than most people might think. So when people argue that the Chinese government centralizes all decisions in its system, it is a misunderstanding or a generalization, to say the least.

It is also notable that China has a strong middle class. Their living standards have been improved tremendously in the past decades, and they are open to new changes and are accommodating different cultures. We can see this in the rapid

"Since 2006, the Chinese government has limited the development of single-family houses and discouraged low-density residential developments with a FAR lower than 1.0."

He'nan Province Campus and Convention Center. Photo Courtesy of Bing Wang

"In my view, the main goal of the government in terms of steering the real estate market and managing the industry is to maintain the stability of the society and the healthiness of the real estate market *(in other words, to avoid a real estate bubble or its hard landing and thus to avoid the real estate industry's adverse effects on the overall economy)*."

growth of social media and mobile payment instruments and in the emergence of neighborhoods that feature eclectic building styles from various countries, with the last one being for better or worse.

JZ: In regard to infrastructure, can we say that major Chinese cities have already caught up to or even surpassed most big cities in America?

BW: In terms of the quality of hardware, including high-speed railway networks, major highway systems and Wi-Fi connections, the answer is yes. However, there are still quite palpable gaps between the qualities of infrastructure in first-tier cities in China and those in the hinterland countryside. However, in terms of software, such as city management, there is still a lot of catching up to do. In many large cities, the focus is shifting from infrastructure development to urban management and comprehensive performance evaluation.

JZ: From your teaching experience, are there any common misunderstandings or biases about China?

BW: As I mentioned earlier, when talking about China's planning system, people often have an assumption that the government operates in a strict top-down system, which poses little flexibility for local governments. The reality is that the local government is much more proactive and independent, and they operate in a considerably flexible system to improve the quality of urban life within its jurisdiction. The flexibility can also be seen in land financed developments, where revenue from land-transferal by a local government is used to upgrade urban infrastructures and improve urban services within its own jurisdiction.

The Chinese government has been using a trial-and-error approach in tackling many urbanization issues. For example, new policies are often tested or applied in one or two cities. Only if the outcome is favorable, are the policies then evaluated at a regional level before reaching a national scope. This gradualist approach, which is often called "pragmatic experimentalism," has been a distinctive characteristic of the Chinese government's operations over the past 40 years.

JZ: What is the value that you think American planners can contribute to China?

BW: There has been a lot of physical planning that take place in China, but there has not been much policy-oriented planning. Chinese planners are usually trained in architecture or engineering, while American planners generally have more experience in policy-oriented planning. In my view, American planners could be helpful by providing advice in improving city management and urban operation.

JZ: Any advice for American planners who are interested in working in China?

BW: First, it is important to understand physical planning better. I do not mean the skills and specifics. I mean its guiding principles, key concepts, and major issues because, at the current stage of urbanization, most planning activities in China are physically oriented. Second, it is important to be capable of planning at different scales. In the U.S., a lot of planning is carried out for individual communities. In China, however, many decisions and significant planning impacts are made at the regional level, such as the recent master plans for Guangdong, Hong Kong and Macau Great Bay Area, and Beijing-Tianjin-Hebei Regional Plans. A lot of planning occurs at the metropolitan level and at the urban level focusing on urban regeneration. At the same time, many planning policies and master plans are being explored in the fringe areas between urban and rural areas. The versatility in planning languages and in the capacity of conceptualization at various scales is key for planners, especially those who are not familiar with the system. Thirdly, it is important to be able to use new technologies in the urban planning field. Technology advancements, such as big data and artificial intelligence, have tremendously improved our ability in understanding and accommodating human behaviors.

JZ: Is there anything we haven't discussed but you believe is important to mention?

BW: Urban planning is playing an increasingly important role in the urbanization process in China, and there are two encouraging trends. The first is the emphasis we see on environmental quality that was often omitted in previous planning practices. Many of the more recent municipal master plans now set environmental bottom lines, in balance with economic development targets, which has long been the sole dominating factor for previous master plans. The second trend we see is the effort to get more robust community involvement in the planning process. Shanghai, for example, used WeChat and public exhibitions to engage local residents in forming its 2035 Master Plan.

However, one controversial and debatable practice is placing a mandate on the size of the population within a metropolitan area – in other words, setting up a limit for population growth. While this policy aims to reduce the degradation of environments caused by the continuous expansion of population in a city, such a policy could also reduce the competitiveness of a city and limit the migration of low-income population, who provide necessary labor-intensive services in the city, thereby diminishing a healthy demographic composition needed for long-term regional prosperity.

"China local governments coordinate closely with the central government and are generally granted enough flexibility in how they generate revenues and manage their fiscal policies in their own jurisdictions."

JZ: What does the government think about competition in the real estate industry?

BW: I am not sure the government would think about the real estate industry from a perspective of levels of competition. I believe stability is much more of a focus than levels of competition in the concerns for the government. That being said, in recent years, we see that many smaller real estate enterprises have been squeezed out of competition, and the size and scale of some of the State-Owned Enterprises (SOEs) in real estate generate an evident advantage. Thus, we often also see that the central government takes actions to adjust the behavior of SOEs in real estate as an extra macro mechanism, in addition to the supervision on the lending interest rate or the quota on land supply, for example, in regulating the market.

In March 2010, the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) publicly announced that 78 central government-controlled SOEs whose primary business focuses were not real estate would be banned from participating in real estate bidding and development projects upon the completion of their current real estate projects. As of now, 21 real estate companies that owned or are directly affiliated with central government agencies or government entities are major players in real estate markets. In a similar token, in 2017, SASAC announced that there would be no SOEs allowed in expatriating money to invest in real estate outside of China.

JZ: What are the goals of the government in terms of real estate development? What are noticeable policies the government adopted to achieve these goals?

BW: In my view, the main goal of the government in terms of steering the real estate market and managing the industry is to maintain the stability of the society and the healthiness of the real estate market (in other words, to avoid a real estate bubble or its hard landing and thus to avoid the real estate industry's adverse effects on the overall economy). In order to achieve these goals, the government has been making efforts to improve affordability, reduce the dependence of land financing by local governments for revenue generation, and help reduce the inequality represented through the evidence of differences in real estate ownership.

Given that rampant speculation in real estate stoked prices and raised concerns of a sharp correction, the central government has introduced a flurry of cooling measures since early 2016. The most well-known phrase that summarizes the government's efforts is "houses are for families to live in, not for speculation," which was dubbed as the unequivocal directive from President Xi Jinping. Specific policies are many. In terms of policies for improving affordability and diminishing the inequality, they include recent policies announced to encourage the establishment of residential rental markets, to entail the equal rights to renters as those for permanent residents, and to establish a mechanism in availing equity sharing with governments in residential condo acquisition for low-income families. These are just a few examples of policies aimed at improving housing affordability. Again, the versatility in adjusting policies to be the most effective has been one of the characteristics of governments' actions in the real estate field. ■ *The first draft of this interview was edited by Andy Read. Prof. Wang edited the final edition.*

"All urban land is owned by the state, and most of the land in the countryside is owned by collective communities in China. It is local governments that transfer rural land to urban land and then sell it to private developers for urban development and expansion."

Shanghai, China

Yinghong Jiang 蒋应红

Ms. Jiang is the Director of Shanghai Urban Construction Design and Research Institute. She started her career in the institute as a designer in 1992 after graduating from Tongji University. Ms. Jiang completed Shanghai Middle Ring Road (Pudong Segment), World Expo and Disneyland Infrastructure Development and many transportation planning projects. While working on projects full-time, she made contributions to many national standards on transportation planning, led teams to work on Disneyland Green Infrastructure Planning Tool Implementation Demonstration, Urban Transportation Development Level of Service Guideline, published 42 research articles and 26 patents. In 2017, She was selected as a member in Shanghai leading talent training plan.

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This interview took place in Mrs. Jiang's office at Shanghai Urban Construction Design and Research Institute on December 19, 2018. Mrs. Jiang spoke softly and delicately. The opinions she made were nevertheless straightforward. The interview was conducted in Chinese.

Jing Zhang: Could you please tell us about transportation planning in Shanghai?

Yinghong Jiang: Transportation planning studies in Shanghai are usually initiated by the Municipal Transportation Committee, a branch of government. Transportation studies also come from the planning department, which is in charge of land use and development. Few studies are sponsored by developers for private development. Transportation studies include comprehensive plans, corridor plans, bus/subway transit plans, transportation hub/terminal plans, freight plans, slow transportation plans, and railway transit plans, etc.

Unlike land use master plans and zoning plans that are required and enforced by law, transportation plans are not legal documents. Transportation planning is more project-oriented than policy-oriented, which means it aims to solve problems, instead of making policy-level decisions.

JZ: Who is on the Municipal Transportation Committee? Are the city councilors or directors of transportation agencies on the committee?

YHJ: Its function is close to a municipal DOT in American cities. The committee members are public administration officials. They are not city councilors or from other transportation agencies. They are more like transportation commissioners in the Western government. The committee is in charge of all aspects of transportation: including freight, road construction and maintenance, river/seaport operation, bus/subway/railway transit, airport, transportation science and data management center, traffic law enforcement department, and traffic operation center.

JZ: Who conducts transportation planning?

YHJ: The government can do it in house or it can be sent to state-owned transportation research institutes. For large studies, the government hires consultants. Consulting firms like ours are state-owned enterprises. There are also privately owned companies, including international consulting firms. It is often assumed that state-owned companies are favored against non-state-owned ones. That is not true. The market is very open and competitive.

JZ: How does transportation planning interplay with land use planning?

YHJ: Conceptually, transportation planning is part of city planning. For a greenfield development, we first decide the potential population size, and then the land use. Transportation follows up as supporting infrastructure. There are drawbacks in this process. For example, in land use planning, floor-area ratio plays a big role. But that is less so in transportation planning. We are more concerned about the trip generation, peak hours, and its impact on the whole transportation system, which is far beyond the scope of a defined development.

Transportation planning should be a constraining factor over land use development, not the other way around. Transportation facilities, existing or proposed, should inform us to set a boundary on what is allowed and what is not.

"Public transit is a social responsibility in that it makes our urban culture possible."

Transportation planning should be a constraining factor....Congestion can be relieved for a period of time by widening roadways, installing viaducts, building underground thoroughfares, or implementing some demand management strategies, but the capacity is not unlimited. That's why I said it should be a constraining factor.

In the past, land use planning emphasized red lines separating land use, and the space between blocks is considered for transportation. This mindset is changing. Streets are not only vital infrastructure; they are also public places where people interact. In recent years, we have been involved in several street design projects where we pay more attention to pedestrian experience through human-oriented details, like shades, the seating areas, drinking water stations, public restrooms, and access to other social services. In fact, we are developing a street design guidance for Shanghai. It is a pioneering project of this kind in China. On the other hand, building new roads is not the ultimate solution. Spacial capacity to transport people and goods has its limits. Congestion can be relieved for a period of time by widening roadways, installing viaducts, building underground thoroughfares, or implementing some demand management strategies, but the capacity is not unlimited. That's why I said it should be a constraining factor. When doing high-density development, there should be a cap on the maximum population size that we can support with an effective transportation system.

Take commercial development for example. Developers want to attract customers, so they construct a subway station. It seems sufficient in the beginning. But what if the business is so successful that one subway line is not enough? Two solutions for this predicament: 1) When you (land use planners) do planning, we (transportation planners) provide adequate infrastructure support. For example, you plan a retail complex with a maximum capacity of 100k customers per day. We make sure transportation facilities will be capable of handling the 100k traffic; 2) When developers propose a retail center, we set a cap to limit the development scale. Say, public investment can only support 40k customers per day. Any development that will attract more than that number of customers should pay for the extra cost of transportation infrastructures.

Essentially, they are two contrasting concepts: Transportation guided development and development guided transportation. They complement each other, and congestion is a symptom of a deeper land use issue.

JZ: How is public transit planning in Shanghai?

YHJ: Public transit is a social responsibility in that it makes our urban culture possible. Private vehicles provide convenience indeed. But when reaching a certain stage of urbanization, we should consider the cost of that convenience to the society: congestion, public health, environmental pollution, and the opportunity cost-the loss of potential benefits from alternative uses including public spaces for social interactions. In an urban area of high density like Shanghai, public transit is not an option. It is a vital system to keep the city alive.

I am strongly against the notion that public transit is for the poor. Public transit is very expensive. Nearly all public transit systems in major cities of the world operate in a deficit and are subsidized by the government in one way or the other. Hong Kong is an exception, where public transit runs with a small margin of profits. I think the more affluent a city is, the more responsibility it has to support sustainability.

Public transit supports intensive developments, and intensive developments make public transit more efficient. It is a virtuous cycle. Through modern technologies, we are capable of providing safe, efficient, and comfortable public transit.

Yinghong Jiang at a meeting. Photo Courtesy of SUCDRI

JZ: How do you do pedestrian and bicycle plans?

YHJ: We often refer to pedestrian and bicycle transportation as green transportation and slow transportation. It has been a trending topic in transportation planning and it is often integrated with urban design and corridor enhancement project as well.

Respect the rights of pedestrians and bicyclists protected by the law. For example, before approving a road widening project, countermeasures must be identified to ensure that the safety for all users is not compromised and that we offer an adequate level of service for pedestrians and bicyclists.

In Shanghai, we extensively use underground areas for transportation and commercial purpose. Properly designed, underground spaces are safer and more comfortable for pedestrians, especially during inclement weather. On this point, we learned from the experience of Japanese cities. Of course, there are concerns like underground air quality and energy consumption. But it extends the city's mobility.

JZ: What is special about Chinese planning that American planners should know?

YHJ: Public participation is different. As I said, planning in China is a top-down process. Plans and designs largely reflect the intentions of the leadership. There is a law-required public comments period, but to truly engage the community through effective two-way communications requires us to do much more than that. Some plans are visionary, some are practical. We, as planners, strive to integrate the leadership intention with professional expertise and opinions from the community, such as engaging the community early on in the planning as it occurs as opposed to soliciting comments after the fact. Our hope is to develop plans that are down to earth and solve real problems.

A planner should also be aware of and prepared for, a high level of uncertainty in planning. Plans often need to be modified after adoption, because of the change of officers or an emerging circumstance.

On the other hand, the guiding policies for planning could be changed. New leadership brings new ideas and sets new priorities. The lack of continuity and consistency could be confusing for a planner. I often suggest that we should slow down, make time to allow an idea to grow, and do not give up an innovative concept because of early setbacks. We spend tremendous social resources to develop a plan and there is community trust embedded in it.

Sometimes, leadership is directly engaged in project details. That brings difficulties for our planners to make a professional judgment. It is better that the leadership set a direction and principles, and let professionals work out the details.

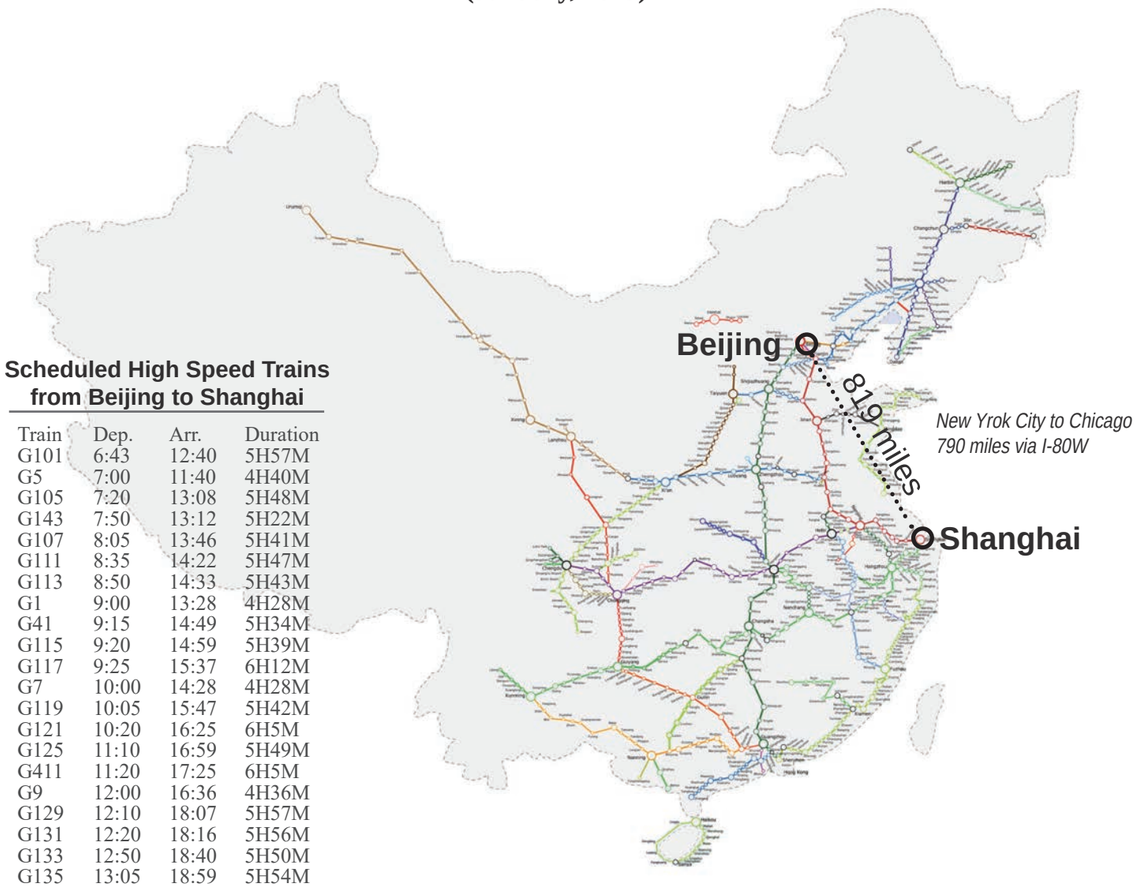
Finally, I would like to mention the vegetation lane, which is required for every street in an urban area. Vegetation lane is a linear vegetation area for trees and/or plants. Once a planner from the United Kingdom told me that vegetation lane is a very distinctive feature of the streets in China. It is a practice that cities in other countries can learn from, which I agree. Trees in streets greatly enhance the quality of our urban environments. They add aesthetic pleasures, separate motor and non-motor vehicle lanes, provide shades, absorb noise, help air quality and prevent jaywalking. Most importantly they make streets more like public places, which play a critical part of the urban experience.

Here is a concern that adding trees on precious urban land seems too luxurious. Indeed, those spaces could be sold to developers, but that is a question of priority: which one is more important, financial gains or quality of life? I believe in most cases, the government can afford to give up some monetary gains for better public spaces. ■ *Margaret Ambrosino*

Ningbo Zhongshan Road. Photo Courtesy of SUCDRI

High Speed Trains

High Speed Railway Map of China (January, 2019)



Scheduled High Speed Trains from Beijing to Shanghai

Train	Dep.	Arr.	Duration
G101	6:43	12:40	5H57M
G5	7:00	11:40	4H40M
G105	7:20	13:08	5H48M
G143	7:50	13:12	5H22M
G107	8:05	13:46	5H41M
G111	8:35	14:22	5H47M
G113	8:50	14:33	5H43M
G1	9:00	13:28	4H28M
G41	9:15	14:49	5H34M
G115	9:20	14:59	5H39M
G117	9:25	15:37	6H12M
G7	10:00	14:28	4H28M
G119	10:05	15:47	5H42M
G121	10:20	16:25	6H5M
G125	11:10	16:59	5H49M
G411	11:20	17:25	6H5M
G9	12:00	16:36	4H36M
G129	12:10	18:07	5H57M
G131	12:20	18:16	5H56M
G133	12:50	18:40	5H50M
G135	13:05	18:59	5H54M
G137	13:35	19:17	5H42M
G139	13:45	20:05	6H20M
G3	14:00	18:28	4H28M
G43	14:05	19:43	5H38M
G141	14:10	20:09	5H59M
G145	14:35	20:33	5H58M
G11	15:00	19:28	4H28M
G155	15:45	21:41	5H56M
G147	15:50	22:00	6H10M
G169	16:40	22:35	5H55M
G151	16:45	23:02	6H17M
G13	17:00	21:36	4H36M
G153	17:16	23:11	5H55M
G157	17:36	23:40	6H4M
G15	18:00	22:43	4H43M
G17	19:00	23:18	4H18M
G21	19:08	23:36	4H28M

Business Class Seat	USD 265
1st Class Seat	USD 141
2nd Class Seat	USD 84

Source: www.travelchinaguide.com/china-trains

Shanghai, China

Min Bu 步敏

Miss Bu joined the Department of Urban and Transportation Planning at Shanghai Urban Construction Design and Research Institute (SUCDRI) in August 2015. She received B.S. Urban Studies and M.A. City and Regional Planning from Cornell University. At SUCDRI, Min has developed her planning interests around underground space planning, tourism master planning, rural town planning and BIM system. Her works were selected for podium presentations at the 2018 Annual National Planning Conference and the 12th International Association for China Planning. As a city planner in China, Min is passionate about the way cities develop and strives for finding innovative solutions that make cities more efficient and accessible to all.

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This interview took place in a conference room at Shanghai Urban Construction Design and Research Institute on December 19, 2018. We had a working lunch at the company's employee cafeteria. It was very exciting for me. The interview was conducted in Chinese.

Jing Zhang: How is your work?

Min Bu: I have been working at this firm for four years. It is a state-owned urban planning and design firm with a focus on all modes of transportation. As a Chinese educated in the United States, it took me about a half year to understand the planning system and project development. A project team usually consists of designers, directors, and managers. Directors are in charge of a particular field such as architecture, landscape, and transportation. Managers supervise a team's overall operation. My work is mostly at the front-end, such as master plans and initial conceptual designs.

JZ: Could you tell us more about your projects?

MB: Properly designed, underground spaces the provide the same quality of the environment as ground spaces, especially for some activities that do not require windows, such as yoga studios and fitness centers. Of course, underground spaces have to be decided before a building is constructed, as it is very difficult to retrofit it beneath an existing structure.

Another project I did was for an industrial park. It was once the most polluted area in Shanghai, and the plan was about transferring the industrial park into a green space. My job was to identify strategies to alleviate further congestions resulted from the proposed improvement. I also did a design project for the spaces under elevated urban highways. The seems small spaces under graded highways actually occupy large urban areas. We call it grey spaces. It can be used for various purposes, from activity fields to urban art galleries.

In terms of community involvement, it is hard but rewarding. Chinese citizens are not accustomed to engaging in the planning process. There is actually very few civil participation traditions and culture in China. However, ordinary citizens can often offer fantastic ideas that planners and designers ignore. For example, in a project for an aged neighborhood, a resident noted that among senior citizens is a distinct gender boundary, that is, men play with men, women play with women, almost without exception. She suggested two activity rooms; one for men and one for women. In another case, a resident noted that after getting fresh vegetables from a farmer's market, they need to throw away the inedible parts, which will then be transported back to the countryside for disposal. He adviced that we subsidize the farmers to cut off the inedible parts at the producing sites, to save the transportation cost.

JZ: How planning in China and in the United States are different?

MB: The planning in the United States is more visionary, where concept plays a big role. The planning in China has more emphasis on actual implementation with data-driven solutions and proven strategies. The American planning schools cover a wide range of subjects, from land use to transportation to real estate law; and Chinese planning schools heavily focus on designs and engineering.

In the United States, there are clear project development stages, such as visioning, goal setting, identifying strategies or alternatives, and prioritization. In China, that is less distinctive. The clients are in most cases the government officials. They expect a complete presentation every time when an idea is presented or an alternative is discussed, from conceptual drawing to cross-section profile to final scenario rendering, and even animations. Every modification of the concept means a redo from the beginning, making the process very time consuming and causing waste of resources. However, it is not without a reason. Government officials supervising a project usually need to report to other officials in higher positions and it is not appropriate to just show a draft concept drawing to a higher officer for comments.

JZ: Any advice or suggestions to American planners who are interested in China?

MB: People should not judge Chinese society according to a standard based on a value system of western society, especially when such a judgment is lack of sympathy or knowledge to Chinese social and cultural background. A country has different priorities during different stages of development. In the past few decades, China's primary mission is to get people out of poverty and improve the quality of life. China has done a marvelous job on that. For example, before constructing high-speed railways, China was harshly criticized by some western media, citing its lack of transparency and environmental considerations. But, it later demonstrated that the opportunities it brings to the economy clearly outweigh those drawbacks. High-Speed railways substantially changed long-distance travel and improved the quality of life for the public.

Because of the advancement of mass transportation, the sense of distance and boundary is changing. Metropolitan regions often consist of several major cities and cover a population of more than 30 million. American planners should be aware of this scale and understand the ripple effect of central cities to its adjacent areas, such as relocating industries within the same metropolitan area to optimize the overall regional performance.

Unlike architecture which deals mainly with physical construction, the planning profession is very close to government and politics. It is essential to understand the process and regulation, to know basic Chinese, and accepting the social values and norms of Chinese society, at least in their professional practice. The living standard and social services in China are significantly improved in the last two decades. However, news about China in Western media has been overwhelmingly negative, inevitably cultivating biased perspectives. I would suggest they coming to China and experiencing it at first-hand. So, they could have a better understanding of how and why things happen as the way they are, and evaluate Chinese society with their common sense.

I would also suggest a book: the importance of living by Lin Yutang, one of my favorite books. It wryly describes daily lives from a perspective of the classic Chinese philosophy of life, or as the author put it, a lyrical philosophy-a highly personal and individual outlook. The book was originally written in English in 1937. ■ *Rebecca Von Drasek*

"The planning in the United States is more visionary, where concept plays a big role. The planning in China has more emphasis on actual implementation with data-driven solutions and proven strategies."

The view from Miss. Bu's office. Photo Courtesy of Min Bu.

To Tram or Not To Tram, That is the Question

By Min Bu

Many Asian cities have adopted urban rail systems to support the growing demands for public transit. The Chinese "Standard for Classification of Urban Public Transport" (CJJ/T 114-2007) sets out benchmarks for population scale, transport demand and economic development level in deciding whether to approve building a metro system for a particular city. Any city that falls short of the criteria would have to consider other transportation systems.

Population	> 3,000,000
Gross Domestic Product (GDP)	>CNY 100 billion
Local government financial income	>CNY 10 billion
Passenger flow scale	Peak time, one-way >30,000 persons per hour
Initial passenger flow	>7,000 persons/day/km

Source: GOSC (2003. No. 81) and NDRC (2015. No.49)

Light rail, monorail, tram, and maglev are the major alternatives for metro system,offering better road compatibility. It runs on grade, sharing right-of-way with street traffic. When there are obstacles, a bridge/overpath or tunnel under-path could be used. There are over 200 tram systems operating in European cities, many of which have become a signature aspect of the city.

Should China follow in suit and build more trams? First, planners need to consider the relationship between trams and the existing public bus system.

In 2013, public bus utilization rate reached a historical peak nation-wide, followed by a turn downward, most likely due to the rise of many internet-based rideshare services, such as Didi taxi, OFO Bike,etc(1).

The city of Wuhan completed its robust subway system around that 2013 peak. At first, bus ridership dropped further, but within a year, the data showed that people began returning to buses.

It is an interesting phenomenon to observe that a public transit system with a medium to high carry capacity not only reversed the declining trend but also developed a symbiotic relationship with the existing bus system. A higher load transit system became the backbone of public transit, and bus lines served as its shuttles. Whichever medium carrying capacity system can provide smooth connection to bus lines will have good prospects in prefecture-level cities that do not qualify for metro construction.

Many problems can be solved by tram, such as comfort, punctuality, travelling speed, congestion,etc. Many believe trams can also provide additional value-added features, such as tourism functions e.g., creating a scenic route.

Take Hubei Province, Huangshi as an example: since 2017, the city hasbeen planning to build a tram route to connect its old town in the north with a new development area in the south.

Financing a tram system requires a blend of operating income and government subsidies. If the tram operation is completely left to the market, its operating entity cannot shoulder its cost, which would lead to unaffordable fares. In response, the municipality would then establish KPIs for improve operating efficiencies, encouraging cost controlling strategies, improving level of service, and promoting the use of tram to the general public.

In Jiangsu Province you will find Huaian Modern tram, one of the first operational trams in China designed by Shanghai Urban Construction Design & Research Institute. The exterior of the tram cars feature advertisement that brings in additional operating revenue. The tram in Taiwan, Kaohsiung went further—it replaced tram doors with one way glass that scenery is visible from the inside advertisements can be seen from the outside. Station naming privilege is another avenue to generate further revenues.

A major concern for tram design is how it could affect street signals. Active, passive, and conditional are the three types of signals being used to accommodate trams. Under active signal, the tram would be prioritized at the intersection with green light. A tram would wait for signal light to turn at passive street intersection like a regular vehicle at passive signal intersections. This is useful when the volume of traffic intersecting the tram route is significantly more than the route which tram is on. Conditional intersection is a mix of the two modes. Taipei and Kaohsiung took about two month to adjust with the new tram system, with the help of organized volunteers.

Utility lines will need to be relocated to accommodate tram track installation. Luckily, trams usually run in the middle of the street, while utility lines are located under pedestrian pavements. Relocation of utility lines at intersections would still be required and some street lights would need to be relocated for tram stations.

The tram is not a perfect solution, but it can be an efficient and practical option for many prefecture-level Chinese cities'. To implement such a system, it puts a municipality's land assembly capability and community engagement capabilities to test.

Whether a tram system can unlock land value along its route, attracting development around its stations like light rail and subway remains uncertain, but what is certain is that many cities' residents look forward to improved ride quality, punctuality, and avoiding congestion. These are all reasons to believe that trams could be a transformative transit technology in many Chinese cities.

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The City of Huangshi is planning to build a tram into its public transit system. Photo Courtesy of Min Bu

Hangzhou China

Fei Yang 杨飞

Fei Yang, Ph.D. Assistant Director of Zhejiang University Urban-Rural Planning & Design Institute. He received his doctoral degree in Urban and Regional Planning from the University of Florida. Dr. Yang returned to work in China since May 2014, also served as the representative of the American Planning Association in China since. Dr. Yang believes that "small is beautiful ", so he has been focusing on rural planning and small town planning which represent authentic Chinese culture and values.

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The interview took place in a cafeteria at the medical school of Zhejiang University on December 18, 2018. Mr. Yang just returned from a business trip. He dressed clean and sharp, carrying silver luggage. We both attended Beijing Normal University at the same time. The interview was conducted in Chinese. The rose rice tea at the cafeteria was amazing.

Jing Zhang: Can you tell us about your job?

Fei Yang: I am the Assistant Director of Zhejiang University's Urban-Rural Planning & Design Institute, responsible for public relations and business outreach. Specifically, my job includes developing partnerships with other planning and design entities, negotiating contracts for consulting services, conducting quality controls of the firm's services, and organizing forums and conferences. For example, this year I initiated 30 projects and arranged three forums with topics focusing on characteristic towns and rural revitalization.

JZ: How does your firm relate to the planning school of the university?

FY: They are separate. Professors of the planning school may do some projects for their studios or workshops, but that is for teaching. We are a holding company owned by the university with about 400 employees and 25 branches. Employment is arranged directly by the company, except for top management positions which are designed by the university. In short, we are a state-owned company led by the university.

JZ: How do you comment on the trend of planning in China?

FY: In the large picture, planning is pushing towards two ends. In the past, planning stayed somewhere in the middle, we did a lot of law-required planning, master planning, zoning regulation, and construction guidance. As the government becomes more service-oriented, planning has more so emphasized functions, and there come two directions. One direction is overall regional conceptual plans, which make recommendations directly to the government, especially the central and provincial government, on development issues at a large scale, such as the Pearl River Delta Area Economic Plan. Plans at this level usually set a business agenda for regional and municipal government. Another direction is more detailed, people-oriented plans: urban design, community planning, project management, etc. The scale can be as small as a block.

Currently, basic civic infrastructure is in place, such as roads, electric lines and stations, water and drainage facilities, public transit, and business/science/industrial parks. It is true even in the 4th to 5th tiered cities. We are moving into a stage that will make things better in terms of serving local residents. In the future, major focuses will be on urban design, urban redevelopment, rural revitalization, and community planning. Meaningful public participation will be key in community planning, integrating all stages of the planning and designing process from conceptual designs to facility operations.

In the large picture, planning is pushing towards two ends...One direction is overall regional conceptual plans, which make recommendations directly to the government, especially the central and provincial government, on development issues at a large scale...Another direction is more detailed, people-oriented plans: urban design, community planning, project management, etc. The scale can be as small as a block.

JZ: What is the general decision-making process?

FY: We can discuss it in two categories. The first is the process for the law-requirement plans, such as land use plans and zoning regulations. While approval usually takes about four to five years, those plans are legally enforceable. The order of the approval process varies by region, but in general, it is the planning department, expert committee review, mayoral office, the office of the Communist Party secretary, and then the planning committee led by the party secretary. There are public comment periods, but they are to engage members of the National People's Congress (NPC), the national legislature, and the Political Consultative Conference (PCC), the political advisory legislative body. The current regulating law is the Urban and Rural Planning Law of the People's Republic of China. This law may be subject to significant modification due to the ongoing national administration reform.

The decision-making process in the other category is close to what American planners call rational planning, which includes setting goals, objectives, and strategies. Although not required by law, those plans are playing increasingly important roles.

JZ: What is special about planning in China?

FY: First, planning in China has a great emphasis on speed, although it might slow down a little bit in the near future. For many government officers, plans are their work agendas, and they impact their political achievements. They expect changes and improvements in a relatively short time frame, like 1-3 years. Because of this, an adopted plan is usually swiftly implemented.

Uncertainty is the norm, especially in scheduling. For big events, such as conferences and forums, the dates are scheduled well ahead of time, but for smaller meetings, scheduling floats around. It is very hard to pin down a specific available time beyond a few weeks in the future. As I said to you before, I am not in charge of my schedule. One reason for the uncertainty is the bureaucracy of planning. For example, our primary clients are the government. The schedules of district government officers are impacted by those of the municipal officers whose schedules are impacted by the provincial government officers. A single day of uncertainty at the top of the hierarchy could be magnified into a week-long shift in schedule. We have to adapt to this by being more flexible and, literally, more mobile.

JZ: What advice you have for American planners who are interested in working in China?

FY: A common misconception is that city planning in China is behind the United States. Chinese planners may not be as experienced in community planning as American planners are, but they are attuned to high density, large scale development and work in a highly complex social-political environment. Nearly all concepts and ideas embraced by American planners have their counterparts in China with subtle differences due to language translations. In cities like Hongzhou, planners are increasingly using crowdsourcing and big data technologies to improve their practice. Through international conferences and forums, they are exposed to cutting-edge planning ideas across the world.

The primary client of planners is the government, and the primary purpose is to maximize the public interest. Therefore, it is a prerequisite that American planners put aside their judgment on the political ideology and establishment for their professional practice. The current social environment is rooted in Chinese culture and a history of more than 4,000 years. Indiscriminately judging it through a lens of western values will be counterproductive to American planners working in China.

Another thing to keep in mind is to use adaptive approaches to communicate with Chinese residents, especially for community planning projects. Unlike American citizens who are used to criticizing the government, Chinese citizens are not comfortable speaking out their concerns to government officials during a public meeting or a planning/design workshop. After understanding the circumstances and planners' intent, they are more likely to provide ideas and feedbacks that planners and designers need. Planners, especially American planners, should be mindful of this when they engage with Chinese citizens.

Another point is that face-to-face is the best, and the most respectable, way of communication in China. Phone calls are not desirable, but acceptable. E-mail is the worst way.

JZ: How about your personal life?

FY: For now, I barely have a line separating personal life and professional life. My job takes most of my time, and I need to find time slots to eat and sleep. It is overwhelming sometimes, but I feel great to be needed and to have value. My wife is studying for her Ph.D. at the University of Florida. She will graduate next year and move to Hangzhou to stay with me and our three-year-old daughter. I will have more family time by then.

■ *Dara Osher*

Small Town Plan of Handwoven Cloth in Zhenfeng County, Guizhou. Photo Courtesy of Fei Yang

Chengdu, China

Qiang He, graduated from Beijing Forestry University with an urban planning degree in 2004, is a registered planner in China. He is the director of Urban Planning and Landscape Architecture group for Tongji Architectural Design (Group) Co., Ltd. at the Chengdu office (TJAD). Before joining TJAD, Mr. He worked at China Construction Southwest Design & Research Institute Co., Ltd. and Shanghai Tongji Urban Planning and Design Institute.

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Qiang He 何强

I got to know Mr. Qiang through Bill Aultman, my classmate. They worked together in Shanghai a few years ago. Mr. Qiang and I exchanged a lot of voice messages on WeChat (a multi-purpose app) about potential topics. He has a very methodological perspective on planning, which I did not expect from practicing planners. This article is a write-in interview.

Jing Zhang: Could you give us an overview of urban planning in China?

Qiang He: The socialism with Chinese characteristics has determined the planning practice in a "context of difference" from bo[illegible]cial and geographical perspectives. Planning systems in China has gone in a winding way of growth and transformation in its evolution.

China's demand planning focuses on the relationship between its land and people. China today remains the world's most populous country with nearly 1.4 billion residents, the size is almost the combined total of the people in the United States and Europe. Meanwhile, China has a vast land area of about 9.6 million square kilometers. That is the most fundamental Chinese characteristic. China has developed its planning system by learning from each evidence-based practice. China has no precedential case to learn from.

The United States is around the same land size of China, but this third populated country has its population four times smaller compared to China. The differences in land and population are even more significant compared to other developed countries. Therefore, China has unprecedented challenges regarding the two fundamental factors: people and land. Today, Chinese people are facing rapid urbanization and tackling leapfrog economic development of hundreds of towns with an overcrowded population. In the urbanization process, China has experienced both positive and negative changes, and all the lessons China has learned are helping to shape a better planning system.

China's form of government leverage needs and resources. The state ownership of land brings about China's institutional strength in conducting infrastructure construction, new city development, and other mega-projects. Major infrastructure, such as highway networks, high-speed rail networks, subway networks, airport terminals, and ports, could be effectively approved and implemented to improve the urban conditions. The progressing high-speed rail network, in particular, will gradually integrate Chinese cities into supercity clusters (I think it will encourage a brand new model of urban clusters). Extension of infrastructure and megaproject will further promote the emergence of new districts, expanding the boundaries of urban development to meet the high demand for growth. I had a chance to involve in the planning of Chengdu High-tech District and Xuzhou High-tech District. Both of the projects were able to be implemented from blueprint within ten years, while they are still growing and expanding.

"The state ownership of land brings about China's institutional strength in conducting infrastructure construction, new city development, and other mega-projects."

Meanwhile, the socialist system is another crucial factor for planning. I have participated in the reconstruction after the "5.12" Wenchuan Earthquake, development projects in Xinjiang Province from 2011 to 2014, and the reconstruction after the "4.20" Lushan Earthquake. In the projects I involved, the coastal well-developed cities would aid the development of designated cities, providing both funding and expertise. For example, during the "5.12" reconstruction, Shanghai supported the city of Dujiangyan; During the construction in Xinjiang Province, our partner to work with was the Kashgar region. The supporting construction projects are all-around cooperation from the government to enterprises. Always starting with planning, those projects aims to help the less-economically-advantaged cities or disaster area boost momentum for further urban development through infrastructure construction, technical training, industrial stabilization, and enterprise anchoring. My foreign colleague exchanging in Shanghai Tongji Urban Planning and Design Institute was amazed by this way of leveraging resources, but all of us think this is a good and reasonable model.

"China has overtaken Japan as the world's second-biggest economy at the end of 2010. Better economy brought awareness for Chinese planning communities to re-examine planning theory and governance methodology from developed countries. Chinese planners have more opportunities for learning through field trips around the world, exploring foreign planning practices and analyzing the failed cases. Meanwhile, a large number of developments in China from prior periods indicates that copying western methodologies in the Chinese context might not work."

China's legal framework of planning and governance system are supportive. The planning legislation and urban governance regulation are inseparable. The current most crucial planning legislation is Law of the People's Republic of China on Urban and Rural Planning, revised and implemented in 2015. Before the 2015 regulation, the nation has promulgated several legislations on urban and regional planning: Interim Measures for Formulating City Planning (1956), Regulations on City Planning (1984), and, City Planning Law of the People's Republic of China (1990). The new law is a clear signal that the Chinese government has changed its mindset to coordinate urban and rural integration. In recent years the Central Government has been actively promoting regional planning projects like characteristic towns and beautiful countryside planning, which are concrete manifestations of the new legislation.

According to the planning regulations, the primary responsible party of urban and regional planning includes planning administrations, the people's government of the provinces, autonomous regions, municipalities directly under the Central Government and cities. Proposals for statutory planning, like urban system planning, regional planning, and city master plan shall be reported to the Chinese People's Political Consultative Conference (CPPCC) or its standing committee for approval. Local planning administration and committee are in charge of carrying out detailed urban planning and design and submitting for approval.

Lately in March of 2018, the Central Government established the Ministry of Natural Resources, following up by local governments organizing Departments of Natural Resources and Planning at the provincial level and Bureau of Natural Resources and Planning at the city level. The action indicates that ecological restoration and inventory planning would be the focus of future work in China.

JZ: What we should know about the historical background of planning in China?

QH: Since the founding of the country, China's planning system has gone with three historic stages.

1. Learning from the Soviet Union. Between the establishment of the People's Republic of China (1949) and economic reform (1999), planning in China was inspired by the Soviet model. The major ideas of the Soviet model were "shifting consumer cities into production cities" and "producing comes before living a good life". China began to transform from an agricultural-based society to an industrialized country during this period, China was emphasizing on building an industrial system. Meanwhile, industrial zones and affiliating residential neighborhoods for workers were planned and constructed. For example, new residential clusters for workers in Shanghai were established during the 1950s and 1990s as a typical planning movement. Additionally, China's planning and design institutions are also a legacy of this period (counterparts are private design and planning firms in western countries).

2. Learning from the West paradigm. Starting from the economic reform (1999) to the global financial crisis (2008), China stepped into the acceleration of industrial and economic growth. It was also the period that China became a member of the World Trade Organization to participate in globalization. China actively adapted western planning ideas and model, when Chinese cities were involved in the global division of industries and labor, as well as competition. In the two decades, China has been absorbing knowledge from urban practices in European cities, British and the US planning systems, as well as models from Singapore and Japan. High-tech industrial cluster in the U.S. (San Francisco Bay Area), Transit-Oriented-Development (TOD) in Singapore and historic preservation in downtown Kyoto, Japan, urban development experience in developed countries have been the references for Chinese planning practices.

3. Self-reflection period. The turning point of self-reflection started from the

2008 global financial crisis. China has overtaken Japan as the world's second-biggest economy at the end of 2010. Better economy brought awareness for Chinese planning communities to re-examine planning theory and governance methodology from developed countries. Chinese planners have more opportunities for learning through field trips around the world, exploring foreign planning practices and analyzing the failed cases. Meanwhile, a large number of developments in China from prior periods indicates that copying western methodologies in the Chinese context might not work. Planning is dynamic. Planning theories came from western cases are experiencing the simultaneous occurrence of particularizing tendencies in Chinese planning systems. Planning theories need to make adjustments while applying to the local practices, due to unmatched scenarios that guided by the theories. This happens a lot in the fast-growing regions in China.

JZ: What is regional differences between coastal cities and inland cities?

QH: When I was involved in construction projects in Xinjiang Province, I flew from Shanghai, transferring in Urumqi, to Kashgar, and then took a bus from Kashgar to the destination, the Bachu County. Every time, it took a day from 8 AM to 8 PM to commute between my office in Shanghai and the county. My intuitive feeling towards the megacity (Shanghai), the big city (Urumqi), the medium-sized city (Kashgar) and the small town (Bachu) varies drastically from the direct commuting. Taking Shanghai, Chengdu, and Kashgar, three cities that I'm familiar with, as examples, differences are mainly reflected in the following three aspects.

Firstly, geographical conditions and corresponding climate. Shanghai is located at the vast hinterland of the Yangtze River with a pleasant climate and abundant rain. The coastal location at the east and perfect conditions for water and land transportation lay the foundation for Shanghai to become a megacity.

Chengdu historically has been a significant town in the western region. After its creation in Qing dynasty, Chengdu has maintained a large population and vast agricultural land.

Niu Hao Shan District Urban Design, Neijiang, southeast of Sichuan province. Photo courtesy of Qiang He.

Yingxiu, a town of southern Wenchuan County, northwestern Sichuan province of Southwest China. Photo courtesy of Qiang He

The third front movement (a massive industrial development after establishing the PRC) has laid an excellent industrial basis for future growth. In recent years, city branding effort also elevates the popularity of Chengdu. Panda, gourmet, and leisure have become common impressions of Chengdu. However, without a busy seaport, Chengdu lacks momentum to become a metropolis.

The Kashgar region is in Northwestern inland China with little precipitation and fragile ecosystem. Alpine glaciers are the primary source of water. Nevertheless, its geographical location is critical. Adjacent to Middle East countries, it is the vital node of the national "Belt and Road" strategy. Therefore, Kashgar has a great prospect, while the ecological carrying capacity would limit the scale of urban development.

Secondly, economic development. Shanghai is China's most developed region. Shanghai alone, its GDP in 2018 was 3.26 trillion RMB. Its future projection is to become a world-class metropolis and a global hub for economics, finance, trade, and transportation, rival to New York City and Tokyo. Chengdu's GDP in 2018 was 1.5 trillion RMB, while its development objective is to become China's national central city, a world-renowned cultural center and one of the gateway cities to China. In Kashgar, the regional production in 2018 did not exceed 100 billion RMB. To become a central city of the region, featuring innovative practices and historical, cultural characteristics is the goal of the local government.

Regional culture

Thirdly, the regional cultures of the three cities are drastically varied. The Haipai culture cultivated in Shanghai is a combination of classical and elegant Jiangnan culture (Wuyue culture) and modern fashion as an international metropolis. The year-long cultural integration has contributed to a unique lifestyle in Shanghai. Originated from the ancient Shu culture, Chengdu is reshaping its cultural identities, relying on the uniqueness of Panda, food, and leisure. Also arose from ancient history, the Kashgar region uses Silk Road culture as its brand.

Location, economics and culture variances shape different planning practices in

the coastal and inland regions. The planning work should reflect on the varied economic level and emphasize local features. In general, planning ideas in the well-developed regions are bolder, which also encourages more innovations in the governance system.

JZ: How is your life?

"There are lots of overtime. If not, then I'm on my way to a business trip." It is an accurate portrayal of life as a planner. In general, in the era of rapid urbanization, planners in China are painfully busy but happy at the same time. They have the opportunity to witness their work being implemented physically in a relatively shorter time. However, timewise, it is difficult to balance family and work in the situation.

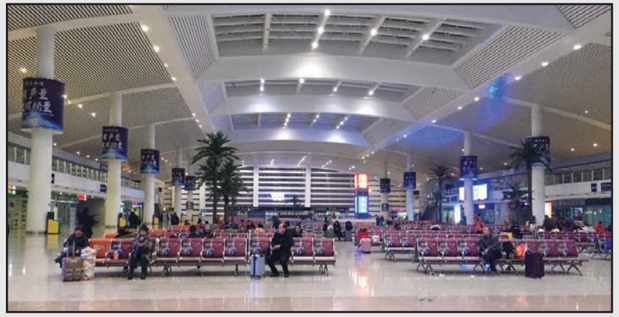
Personally, working as a planner in China has two significant benefits along with over-working and business trips: sufficient exercise and dietary satisfaction. All-day-long fieldwork and research require planners to have a good body. Many colleagues of mine exercise regularly. Meanwhile, with frequent business trips, we have the opportunity to taste local cuisines at different places, Chinese mitten crabs in Shanghai, spicy food and hotpot in Chengdu, Kashgar's kebabs and noodles, grilled seafood with beers in Qingdao, and Guizhou's sour fish soup. We are privileged to explore the diversity of Chinese food.

Lastly, we welcome planning colleagues from the United States. We are looking forward to talking about and collaborating in urban design and planning projects, bridging the gap between different planning paradigms. ■ *The article was originally written in Chinese. It was translated by Ruichen Ni and edited by Shengdi Chen.*

A small town in Xinjiang, an autonomous territory in northwest China. Photo courtesy of Qiang He.

Editor's Note: Photos II

On December 7, 2018, I rode a non-high-speed train from Beijing to Tangshan, my wife's home town. It was close to midnight. Some passengers fell asleep on couches; some stood against the wall; some ate snacks and drink white wine. The ride is reasonably comfortable and affordable, costing less than $4 for a journey of over 100 miles in 90 minutes.



This is the newly constructed railway station in Tangshan, Hebei province. The waiting lounge provides drinking water in hot and cold, and a nursery room is there for the public.

When driving into the parking lot, the plate number is read by a camera installed at the gate. Upon leaving, drivers only need to use their smartphone to scan the QR code on the sign and pay through WeChat or Alipay.

A subway entrance in Changsha.There is a gathering place of motorcycle taxis waiting for customers. The motorcycles are convenient, although probably operate without a business license. There is also a bus top, a rental bicycle station, and some parking space for bicycles and motorcycles.

Beijing, China

Hungchih Liu 刘泓志

Mr. Hungchih Liu, Senior Vice President Asia Pacitic, Leader for Strategy & Development, Cities Market Sector Leader, Greater China, AECOM. Mr. Liu graduated from Harvard University with a Master's degree of Architecture in Urban Design. In the past thirty years of professional experience, Mr. Liu is devoted in the field of design and reformation of the public realm. As an expert in identifying key urban issues and formulating effective solutions to the challenges in urbanization, he introduces innovative solutions by leveraging technological and humanistic approaches and provides integrated action plans to achieve operational efficiency and to reinforce cultural identity. Recent works include urban cultural studies, place branding, infrastructure oriented development, urban resiliency and capacity, reactivation of public space, action driven urban planning, architectural urbanism and growth strategies for cities. As a trusted expert and advisor, Mr. Liu's expertise in the field has been widely recognized and awarded. He is a Board Advisor for the Shanghai 2040 Vision Plan, an invited expert for the 2040 Pudong Masterplan, and a member of the International Advisory Board for a National Urban Design Innovation Center in Beijing. In 2017, he acted as the Deputy Chief Planner for the new sub-center of Beijing, and was voted as the Designer of the Year 2017 by Beijing Youth Weekly.

This interview took place at the Executive Lounge of JW Marriott Hotel in Beijing on December 16, 2018. Mr. Liu is sincere, gentle, and well-spoken. His mastering of Chinese traditional literature and philosophy drove our discussion well beyond city planning. The interview started in English and switched to Chinese in 15 minutes, as many terms in Chinese literature are hard to express in English. Alice Wei, the Director of AECOM Brand Development in Great China, was present during the interview. Thanks to Alice for preparing the Chinese version of this article. Thanks to Matthew Hartzell for translating the article into English. Hungchih, Alice, Matt, and I all agree that it's a very difficult translation.

Jing Zhang: AECOM has been extensively engaged in the urbanization in China. Could you say something about AECOM's long term outlook on China?

Hungchih Liu: With the second largest economy and trade investment in the world, China is playing a larger role today on the international stage than decades ago. Given the scale and speed of its urbanization, China is a noticeable and nonnegligible part in the overall story of global urbanization. Presently, its urban development is undergoing a critical transformation. China is moving from "big" to "great", carrying out the greatest upgrade to high quality urbanization from rapid and large-scale urban development in the past.

China's focus today is on the operational efficiency of cities and improving the quality of life for their citizens. Under current circumstances, the focus of urban planning has been shifted from sticking at building new skyscrapers and constructing mega infrastructure that symbolized simple modernization to solving urban problems that have arisen in the rapid developments during the last several years. Urban planning today is heavily driven by innovative technologies such as data analysis and the pursuit for the quality of life. China used to look abroad for inspiration in planning, but today we can see that China is beginning to export its own experiences to the rest of the world.

AECOM has participated in numerous pivotal construction projects in China, not only borrowing from relevant international precedents but also developing in-depth local expertise. We believe that there is enormous market potential for future development in China judging by its coming critical urban paradigm shift. These opportunities are not only reflected in the country's craving for better quantity of infrastructure but also in the need for continuous economic growth and reform of social services as well as a more mature professional services sector.

We deeply understand that the urgency of China's continuous urbanization in terms of pace, quantity, and quality, and the criticality of harmoniously synchronizing planning, construction, and management, are central to this transformational process. AECOM continues to evaluate those completed projects to assess their performance in order to sum up the experiences, by doing so we aim to share them with our clients and our strategic partners across disciplines. We believe that this is the way to achieve the shared goal of creating more livable and sustainable cities in China.

"China used to look abroad for inspiration in planning, but today we can see that China is beginning to export its own experiences to the rest of the world."

JZ: Based on your years of experience as an urban planner in China, what are some unique characteristics of urban planning as they pertain to China?

HCL:There are many characteristics of Chinese urban culture that make city planning different here. This may create difficulties for Western planners to apply proven techniques and precedents to the Chinese conditions in a way that meshes with Chinese values. Since I worked as a planner and urban designer in the United States previously, this is an area in which I have abundant personal experience.

We repeatedly witness attempts to apply progressive ideas from the West to China, but it is rare to see them properly implemented due to differences in culture and values. Instead, what happens more regularly is, like the Chinese saying, "drawings of great ideas to be hung on the wall, not to be built on the ground". This is a great pity. It's also the reason I decided to return to China to practice planning more than a decade ago. I wanted to feel the pulse of urban development up close, and to be able to engage myself as an urban planner in probably the largest and rapidest movement of urbanization that I could encounter in my life. This goal of mine is much better accomplished as a practitioner on the ground in China than remaining an observer on the outside looking in.

Therefore, if I have to single out what is unique about planning in China, it is the negotiating balance and inclusivity between the needs of the fast-paced urban development and the continuously evolving planning system, between the needs to preserve local culture and to engage global influence, between the needs to accommodate advancing technologies and to sustain the core value represented by conventional urban planning process. Chinese urban development is guided mainly by top-down policy-making, yet the bottom-up market force, which is an increasingly major driving force in becoming, causing a shift of planning focuses from the visual urban representation to the implementational mechanisms. This includes planning for and managing the dividends of an increasingly mobile population under the commanding economy, how top-down dominant policies integrate market feasibility, and how social fabrics are preserved through these large-and-rapid urban developments.

China's urban planning needs to provide inclusivity in a broader range, especially to foster urban diversity in the context of rapid urbanization, and to be prepared for a more technologically advanced community to accommodate future innovations, such as Autonomous Driving technology, Blockchain, and all emerging smart infrastructure. Consequently, inclusiveness and leeway for accommodation of future advancements are two critical points for understanding China's planning market.

JZ:What would you highlight as unique characteristics of Chinese urban culture? Can you provide some background information that would be of use to foreign planners seeking to work in China?

HCL:Regarding the culture of Chinese cities, I can summarize six main takeaways based on my direct professional experience. These characteristics are informed by ways of thinking promulgated in tradi-

about Chinese urban planning culture

抓大放小
grasping the big picture before focusing on the details

顺天应人
urban development that follow the rules of nature

辨方正位
determining the spatial order

制礼作乐
balance rites and music to regulate the city

形意相生
complementary form and meaning.

执两用中
holding both ends to clinch the heart of the matter

tional Chinese philosophy and should be of great use to foreign planners seeking to understand the way Chinese cities work.

The first characteristic I define as "grasping the big picture before focusing on the details." Within the field of urban design, China's value system places significant emphasis on macro-scale and strategic big-picture thinking. This way of thinking has already become the dominant decision-making basis within China's urban design practice.

Chinese policymakers believe that before any comprehensive planning work can take place, it is necessary to first understand the macro-scale issues and identify the political framework that are driving the changes behind each city. To a certain extent, big-picture thinking can be thought of as a kind of "informed political wisdom." It is also a strategic way of allocating resources in order to achieve an optimal spatial and social balance in keeping with long-term development needs. In China, the vast majority of planning decisions are top-down, and big-picture strategic thinking is at the core of planning decisions.

The "bigness" in such big picture does not just refer to the scale of the planning project or the prioritization of the decision-making process. More importantly, it is relevant to the establishment of an urban order in line with the political climate. It's not so much about a planning process that respects rationality or logic, but one that reflects the philosophy of Chinese urban culture.

"The development process in Western cities is based on the laws of the market. But in China, planning must aspire to a higher purpose, to change or create new market trends in order to guide cities to sustainably balance political, economic, and social development. "

The development process in Western cities is based on the laws of the market. But in China, planning must aspire to a higher purpose, to change or create new market trends in order to guide cities to sustainably balance political, economic, and social development. As an example, the allocation of public services in a Chinese city should, in theory, be tailored to that city's planned population. Beijing's planned population is capped at 23 million people but given its top-tier assets in the realms of education, health care, and culture, people from all over China desire to move here. With this in mind, when planning for public services in Beijing, 30 million people is a more accurate population estimate. In this case, planning based purely on logic and rationality is unable to meet the actual needs of public services.

In addition, with the rapid development of Beijing, the contradiction between its function as the nation's capital, and the daily operation of the city has been increasingly apparent. One result of the increased contradiction is the traffic congestion that currently plagues the city. Therefore, we see major initiatives to relieve Beijing of non-capital functions, such as moving the Beijing municipal government to suburban Tongzhou District and establishing a capital sub-center in Xiong'an New District. In these planning actions, we see the rolling out of new urban patterns that not only highlight decision-making tailored to real problems but also reflect the values and orientation of Chinese urban culture. By addressing China's urban ills, the planning process is restoring orders that spatially prioritize the establishment of political framework that continues to honor Beijing as the center.

The second characteristic can be described as "urban development that follow the rules of nature." Traditional Chinese philosophy dictates that in relationships between people as well as the relationships between people and

Detail Planning and Urban Design for Beijing South Axis Area. Photo courtesy of AECOM

shape
form
body
entity
exemplar

meaning
intention
idea
wish
sense

"Form" and "Meaning" can be said to make up the basis of Chinese aesthetics. In the values and judgment of Chinese urban planning, "form" is not an outcome but a tool by which to convey the abstract aesthetic innate characteristics which transcend visualization, or "meaning."

the environment, the emphasis is not on contradiction but harmony and integration. Applied to the urban context, the relationship between people, land, and the heavens should be likewise. This kind of harmonious relationship is reflected in China's planning thinking and language. Some concepts are similar to those popularized in Western planning, such as principles of physical planning, sustainable design, and democratic participatory planning. But in addition to these, Chinese planning thinking also includes several concepts that diverge from the Western planning cannon, such as harmony between the nature and human beings in both mind and image. In addition to the black-and-white decision making that informs scientific planning, Chinese planning is concerned with the non-physical but rather symbolic and ritual aspects of the city, such as the solar calendar. This emphasis on the non-physical can be distilled as the "environmental wisdom" of Chinese urban culture. Historically, this philosophy helped shape Chinese cities into paragons of ecologically sound development and sustainability.

The third characteristic can be described as "determining the spatial order." Compared with the West, Chinese urban design mindsets at both the urban-wide level and the individual residence level are highly concerned with orderly spatial layout and hierarchy. This forms a unique starting point with a profound influence on the way Chinese planners view the relationships between people and cities and between cities and nature. Chinese calligraphy, painting, writing, opera, and phonology all pay special attention to the first physical actions that set the tone of the entire picture of works.

Such value of orientation can be understood as an emphasis on the site selection and critical framework of the city in urban planning and design. The more profound significance lies in how to create a foundation and pattern for the city, and how to establish an intractable "deep order" that governs the long-term operation of the city.

At the same time, this concept informs the philosophy behind Chinese city-building and the ways in which spatial layouts are chosen to best govern Chinese cities. The Book of Rites of Ceremonies (one of the Thirteen Confucian Classics) is one of the first books written on urban planning in China. It calls for city-building through rigorous attention to form and structure. It is not so much a spatial paradigm, but rather a value system that reflects the social order and governance needs of the times. The implicit spatial ethics of this "strict spatial order" are fundamentally different from concepts such as hierarchy and axial structure found in Western urban spatial. To simply interpret Chinese urban space sequence along the lines into a "central axis" layout is to diminish the "structural wisdom" inherent in traditional Chinese city-making.

In Chinese cities, orientation is a very important concept. Chinese like to construct buildings that face south, with mountains behind and water in front. They should be laid out neatly and orderly, forming a narrative relationship with the surrounding urban environment. These preferences are about more than just fengshui; they reflect deep-rooted value proposition in Chinese urban cul-

ture.

The fourth characteristic can be described as “balance rites and music to regulate the city.” In China, rites and music reflect the importance of balancing the formality and informality of urban form and culture. In the Chinese classic Classic of Rites, it is said that music represents the harmony between heaven and earth, while rites represent the maintenance of order between heaven and earth. From the perspective of urban space, we can understand “rites” as a rational system of order, a centralized form of power, and a spatial symbol representing core values. “Music,” on the other hand, represents a less rigorously structured state of emotion and a harmony between heaven, earth, and nature.

It is this concept that explains the tendency of humans to want to be near mountains and water, even in the midst of the city. “Rites” represent high-energy-high-level activity, while “music” represents the slower, more leisurely aspects of life. China's urban design methodology reflects this philosophy of “rites and music.” Chinese urban planning holds in esteem a clear but mutual balance between these two forces of energy, which in concert represent a kind of “spatial wisdom.”

The fifth characteristic can be described as “complementary form and meaning.” "Form" and "Meaning" can be said to make up the basis of Chinese aesthetics. In the values and judgment of Chinese urban planning, “form” is not an outcome but a tool by which to convey the abstract aesthetic innate characteristics which transcend visualization, or “meaning.”

This is a departure from Western philosophy, in which material aesthetics, or form, is in service of function. The shaping of urban form in China is not fulfill functional needs, but to convey “meaning.” For example, intangible and tangible "blank space" in Chinese painting is a kind of artistic expression. The communication of "meaning" is not reflected in the work itself, but in the viewer's heart. The transmission of meaning is not embodied in the artwork itself but in its admirer’s mind. For this reason, there is a significant gap in both scientific logic and romantic imagination between Chinese and Western value systems.

"A city with hope is a city that inspires. Its citizens will be empowered with visions for a better future. This is the most precious and long-term strengths that a city can exhibit."

Ultimately, urban design and urban form are reflected in the physical environment. Thus, the delimitation of spatial characteristics and scale in China are different from those rigorous black-and-white ones founded in the West. Chinese urban planning strives to give citizens space to imagine, to “fill in” those grey spaces, and to realize the abstract quality of “meaning.” This very important aesthetic quality is a product of Chinese philosophical mindset, and it is embodied in China's unique "expressive wisdom.”

Finally, the sixth characteristic can be described as “holding both ends to clinch the heart of the matter.” Ming Dynasty Confucianist scholar Yangming Wang in his book “School of Mind” put forward the idea that “one should not fuss over details but grasp the problem by both ends.” This idea resonates deeply alongside the Confucian notion of the “Golden Mean,” and reflects the “life wisdom” of Chinese urban culture. Western planning typically follows a more straightforward approach, using linear thinking to investigate problems and explore solutions.

Chinese planning thinking, on the other hand, tends to weigh both sides in order to grasp the heart of the matter. Therefore, in terms of spatial form, Chinese planning thinking typically prefers methods that address both sides of any given issue in order to arrive at the central theme, while Western thinking prefers to address the central theme directly.

In your TED talk "In Search of the Beauty in the City", you mentioned several aesthetic qualities that cities ought to possess, such as the “beauty of authenticity” and the “beauty of hope.” What are some strategies that urban planning and design can use to achieve such goals?

HCL: The “beauty of authenticity” is a fundamental characteristic that arises from the existence and development of different cities. It is manifested in external architectural form as well as physical space. It is embodied in the lifestyle and values of urban citizens, or what can be called the “urban spirit.”

Let's have another look at the Tongzhou project mentioned above in order to explain this concept in more detail. Tongzhou is being planned as the sub-center for Beijing. A thousand years ago, Tongzhou started to exist as the starting point of the Grand Canal, linking Beijing in the north with Hangzhou in the relative southern China. Subsequently, it has taken on several different roles — a county under the jurisdiction of Beijing municipality, an administrative district, and now, Beijing’s sub-center. Thus, the “beauty of authenticity” in this case stems from the root cause of its existence not from labels applied to Tongzhou or its functional role. The water transport function of the Grand Canal has long been replaced by modern logistics and transportation. In cultivating Tongzhou’s new role as Beijing’s city sub-center, besides being a tourist attraction, the Grand Canal also serves as a symbol of Beijing’s vitality. The trajectory of the city’s development emphasizes the “beauty of authenticity.” Historically, the Grand Canal was the reason for Tougzhou’s existence. With good planning, it can also perform as the base of the city’s future. In the course of urban development, the shaping and evolution of urban space serves as a record of urban citizens’ hopes and desires written large in the urban environment. A city’s authenticity hinges on whether that city’s development is in keeping with its citizens’ common beliefs. Better practiced in concert with participation by urban citizens, recognizing and continuing to respect the authenticity of the city must remain central to urban planning mindset.

When I refer to the “beauty of hope” in the city, I speak of the ability of the city to continually attract new citizens who view the city as the location where they can realize their dreams. A city with hope is a city that inspires. Its citizens will be empowered with visions for a better future. This is the most precious and long-term strengths that a city can exhibit. Why do people gaze at the skylines of urban metropolises? I believe that it is because skylines represent prosperity, wealth, and opportunity, giving citizens the hope that the city is full of resources just waiting to be tapped. Why do people yearn to live in cities that are vibrant and full of possibilities? It is because that they can see in the city a high quality of life and a vision of sharable better future. If a city’s attraction is based only on planning blueprints instead of this provision of “hope,” the city’s planning is surely too feeble and weak to be a livable place. A city that is unable to provide its citizens with motivation to pursue their dreams is a city without future. As urban planners, our greatest challenge and opportunity lie in creating of space in our cities for hope and linking our plans with the hopes and dreams of urban citizens.

JZ: Considering the urgent needs of China’s cities today, what are some suggestions you have for foreign urban planners and designers hoping to contribute to China’s urbanization?

HCL: Having lived and worked in the United States for a period longer than a decade, mainly I have three thoughts that I would like to share with American planners regarding how the differences between planning mindsets in the US and China might be bridged. The first is to retain the empirical approach of American planning. Empiricism is one of the greatest strengths presented by the American planning system. Due to the influence of Chinese culture and philosophy as described above, I admit that American empiricism could be met with some amount of questioning or even resistance when applied to the Chinese context. Nevertheless, I believe that American planners’ empirical contributions do hold value, not to mention that in an ideal world,

Urban Design Proposal for a Nature-permeable City that introduces Agrarian Gardens and Autonomous Driving Technology.
Photo courtesy of AECOM

"If I have to single out what is unique about planning in China, it is the negotiating balance and inclusivity between the needs of the fast-paced urban development and the continuously evolving planning system, between the needs to preserve local culture and to engage global influence, between the needs to accommodate advancing technologies and to sustain the core value represented by conventional urban planning process."

they would be integrated harmoniously with Chinese traditional planning values.

The second is to maintain a planning mindset of inclusiveness and equitability in the planning process. As described above, China's urban planning priorities must fulfill the needs generated from the rapid urbanization. Because of this, it is necessary that planning in the Chinese context possesses a high degree of tolerance for change. It must also exhibit the ability to adapt to the special characteristics and needs of Chinese cities, and to leave enough space for future development. In addition, planning in the United States can be characterized as highly inclusive of cultural diversity so that this is one of its core values. Planning in China should likewise foster ethnic integration and equality, as well as address income disparity, accessibility, and the rights of minorities in the city. In these areas, I believe Chinese planning could benefit from learning American counterpart.

Thirdly, it is essential to persist in engaging citizens in the urban planning process and to introduce to Chinese planning more "bottom-up" mechanisms for public participation. In this way, planning can better meet the daily needs of urban citizens, and better "treat" those urban "diseases" which plague our cities and impact citizens' quality of life. Furthermore, planning in China could borrow from the type of "micro-reforms" that have been popular in the West for several years to foster better, more attractive urban environments that do more to meet the daily needs of urban citizens. In this way, citizens can gain a stronger sense of connection to their city, cultivating a sense of belonging and security. I believe that with these public engagements, our citizens will feel a greater attachment to their cities and neighborhoods and be instilled with a sense of optimism for the future. ■ *The article was originally written in Chinese. It was translated by Matthew Hartzell.*

Beijing Yanqi Lake International Conference Center and National Guest House. Photo courtesy of AECOM

Urban and Rural Planning Law of the People's Republic of China [Revised] (excerpt)

Issuing authority: Standing Committee of the National People's Congress
Document Number: Order of the President of the People's Republic of China(No.74)
Date issued: 10-28-2007 Effective date: 01-01-2008

Article 1. This Law is formulated for the purpose of strengthening urban and rural planning administration, harmonizing urban and rural spatial layout, improving people's living environment and promoting the integrated, harmonious and sustainable development of urban and rural society and economy.

Article 3. Cities and towns shall work out city planning and town planning in accordance with this Law. Construction activities within a city or town planning area shall be conducted in accordance with the planning requirements.
The local people's government at or above the county level shall, in light of the local rural economic and social development level and in accordance with the principles of adjusting measures to local conditions and feasibility, determine regions required to establish township or village planning. The townships and villages inside the regions shall work out their respective planning in accordance with this Law. The township and village construction within the planning areas shall be in line with the planning requirements.
The local people's government at or above the county level shall encourage and guide the townships and villages outside the regions to work out and implement township and village planning.

Article 18. A township or village planning shall proceed from the actual situation of the rural district, respect the will of the villagers and embody local and rural features.
A township or village planning shall include: the coverage of the planning area, the layout of the land used and the construction requirements for dwelling houses, roads, water supply, drainage, power supply, garbage collection, livestock and poultry feeding plants, service facilities for the production and livelihood in rural areas, and public welfare establishments, and the specific arrangements on protecting farmland as well as other natural resources and historical cultural heritages and preventing and alleviating disasters, etc. A village planning shall also include the overall arrangement for the development of all villages within this administrative region.

Article 17. The overall planning of a city or town shall include: the overall arrangement for the development of the city or town, functional zones, land use layout, comprehensive traffic system, regions prohibited, restricted from or appropriate for construction and various kinds of special planning, etc.
The following contents shall be included in the overall planning of a city or town as mandatory contents: coverage of the planning area, scale of the land used for the construction of the planning area, land used for infrastructure and public service facilities, water head sites and water system, basic farmland, and land used for afforestation, environmental protection, protection of natural and historical cultural heritages, and disaster prevention and alleviation, etc.
The planning period of the overall planning of a city or town is usually 20 years. The overall planning of a city shall forecast the long-term development trend of the city and make corresponding arrangements.

Article 24. Organs organizing the establishment of urban and rural planning shall authorize entities with corresponding qualification grades to undertake the specific establishment work.
An entity may undertake urban and rural planning establishment work within the scope authorized by its qualification grade after satisfying the following requirements, passing the examination conducted by the competent department of urban and rural planning under the State Council or under the people's government of the concerned province, autonomous region or municipality directly under the Central Government, and obtaining the qualification certificate of the corresponding grade:
1. having the corporate capacity;
2. having the prescribed number of planners who have been legally registered at the competent department of urban and rural planning under the State Council;
3. having the prescribed number of related technical personnel;
4. having corresponding technical equipment; and
5. having a sound technique management system, a sound quality management system and a sound financial management system.
The administrative measures for the practicing qualification of planners shall be formulated by the competent department of urban and rural planning under the State Council together with the personnel administrative department under the State Council.
The relevant state standards shall be observed when establishing urban and rural planning.

Source: http://en.pkulaw.cn/display.aspx?cgid=98764&lib=law

Berkeley, CA. USA

Peter Calthorpe

Peter Calthorpe's long and honored career in urban design, planning, and architecture began in 1976, combining his experience in each discipline to develop new approaches to urban revitalization, suburban growth, and regional planning. His current work throughout China is focused on developing standards and examples of Low Carbon Cities in Beijing, Chongqing, Kunming, Zhuhai, and other major cities. Through design, innovation, publications, and realized projects, Peter Calthorpe's 30 year practice has helped solidify a global trend towards the key principles of New Urbanism: that successful places – whether neighborhoods, towns, urban districts or metropolitan regions – must be diverse in uses and users, must be scaled to the pedestrian and human interaction, and must be environmentally sustainable.

I reached out to the APA Urban Design & Preservation Division, asking for people who I can talk to about urban design in China. The division leadership recommended Mr. Calthorpe as a top urban design professional with extensive Chinese experience. Mr. Calthorpe readily accepted my interview request. The interview was held over the phone at 1:00 pm on March 5th, 2018 (San Francisco Time). The interview was conducted in English.

Jing Zhang: Could you talk about your work experience in China?

Peter Calthorpe: About 10 years ago, I was contacted by the Energy Foundation, a nonprofit group that advocates for climate change policies in both California and China. They were doing a project to promote sustainable design at metropolitan planning scale in China. The idea was that China could improve its cities and simultaneously deal with climate change and carbon emissions.

Firstly, they sponsored me to do a set of design principles that I thought would be appropriate for China. Secondly, we went to in various cities around the country and ended up working in six cities. We've done master planning for cities over 10 millions population to prove that the design principles really could work in China. Eight years later, China literally adopted all the design principles as a new set of urban design standards, including things like urban growth boundaries, block size, a transit-oriented development, historic preservation, walkable neighborhoods, and mix use. All the things that are considered, are pretty much best practice around the world. It has been proven that those design principles are appropriate for China and really can make a difference.

Recently, we just won a competition for part of the new capital design in the south of Beijing. There's an existing city down there. Most of the new capital will be relocated to a greenfield site, and I am interested in the existing city and how it would be affected. The city has a high-speed rail station and we are expecting the first wave of development will happen within its jurisdiction in the very near future.

JZ: How do you think about the difference between China and the United States in urban design?

PC: What I experienced most was the standardization. There was an assumption that there's a standard way of doing things and then to deviate. you really needed permission. In the United States, people pretend that there's no standard, even though there are subdivisions and shopping malls. These are all completely standardized phenomenon, but every community thinks they're special and unique. Whereas in China, nobody really just starts with the assumption that they're unique and that's a big problem because they created a condition in which they could destroy their own identity and history.

China has a more rational process. There is not a lot of community meetings and NIMBYs arguing against any kind of growth. It's the politicians, planners, designers, and economists who try to frame what and how to build. China's brought 800 million people out of poverty in the last 30 years and they've done it by moving people from the countryside to the cities. So speed has been the highest priority. At the service of speed, they've built some pretty awful urban environments: the superblocks are really a mechanism for speed and simplicity in terms of producing large quantities of urban development; the repeated residential towers, each of which is the same, are all about speed and efficiency. And now they've turned a corner and understood the need to increase the quality of life in the city. And that's why they became really interested in what are the best practices in terms of shaping cities, which are socially and environmentally sustainable.

JZ: So, the principles are based on New Urbanism?

PC: I think the principles are kind of universal. Right now I'm writing a book for the World Bank, focusing on what are really best practices and design principles that are universal globally. For example, you have to preserve natural landscapes, history, and culture. If you don't preserve those things, you create placeless places. You have to create human scale and walkable communities. That is a universal need for a healthy city. If you build cities around the automobile, it will fail. You have to build mixed use environments and allow things to interact. Also, transit oriented development, the idea that we need mass transit as the backbone of cities is universal. There's just no other way of accomplishing that as cities grow to the scale that we're talking about. The car really is dysfunctional. It is a 50-year experiment that is failing. It's failing every city around the planet.

JZ: How is your interaction with Chinese authorities?

PC: My experience was unique. Most of the cities that hired us understood that what we were supposed to be doing is challenging the norm. I was literally asked to break the norms. In doing so, I got a lot of attention and there was a fairly thoughtful set of responses and, and quite frankly, the cities that hired us understood that. They were testing cases. With the great economic transformation in China, it was based on these special areas where they allowed market economics. It was like a test tube environment. The same is true with this new form of urbanism. So the city designated to do that brought us in, understanding that they were engaging in a big experiment and they were, therefore, very supportive. But it was also very important for me to explain the design principles and explain the rational basis behind it.

JZ: Do you have any advice to American planners or designers, who are interested in working China?

PC: Well, it's very difficult. You know, it's a culture where relationships really matter. Spending time with clients, it matters a lot. I wouldn't even begin to contemplate it without having a local office in China. It is, once again, similar everywhere. If you want to have work in certain cities in the U.S., you have to have a presence there and you have to have personal relationships. You have to cultivate personal relationships. It's the same in China. ■ *Patricia Booth*

"China's brought 800 million people out of poverty in the last 30 years and they've done it by moving people from the countryside to the cities. Speed has been the highest priority."

7 Strategies for Sustainable UrbanPlanning

1 Make Connections
Connect data, people, aspirat ions, needs, opportunities, fut ures, and outcomes.

2 Collage Data
Integrate data to reveal patterns, educate stakeholders, and extend boundaries.

3 Solve for the Future
Integrate data to reveal patterns, educate stakeholders, and extend boundaries.

4 Build Scenarios
Test varied strategies, press extremes, and find the sweet spot.

5 Seek Co-Benefits
Transform single-issue advocates into coalitions, reveal interconnected out comes.

6 Be a Generalist
Analyze and integrate multiple metrics to end stovepipe thinking.

7 Think Beyond Horizons
Stretch boundaries, expand timeframes, and connect the dots.

URBAN FOOTPRINT

Shenzhen Futian CBD: A Forty-year History of Planning

Shenzhen, China

Yixin Chen 陈一新

Dr. Yixin Chen has been the Deputy Chief Planner of the Planning and Natural Resources Bureau of Shenzhen Municipal People's Government since 2009. Her published books include The Central Business District Planning and Design, and the Shenzhen Futian CBD: A Thirty-year History of Urban Planning and Constriction (1980-2010). Dr. Chen has a bachelor's and a master's degree in architecture from the Department of Architecture of Tongji University (1980-1987). She received the French Presidential Scholarship to study in France in 2001, and earned his Ph.D. from the Southeastern University in 2013. Dr. Chen is a Registered Senior Architect.

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Translated by Raymond Lai (黎荣邦), AICP

In 1979, China's State Council approved the reclassification of Bao An County in Guangdong Province to be the City of Shenzhen. Due to the "Reform and Opening" of China, Shenzhen was born and has become very strong. This is a representative city of 40 years of "Reform and Opening". With a land area of 771 sq. miles and a population of 13 million, Shenzhen is located north of and across a river from Hong Kong, in southern China. Over the last 40 years, Shenzhen has transformed rapidly from a rural agricultural county to a modern megacity, a miracle in the history of making a world city. Its 40 years of evolution can be demonstrated by 3 sets of numbers during 1979-2018: population growth from 310,000 to 13 million, Gross Domestic Product (GDP) increase from $0.29 billion to $3,596 billion, and expansion of developed area from 1.16 sq. mi. to 357.92 sq. mi.

In the 80's, Shenzhen's comprehensive plan called for a goal of an integrated special economic zone with focus on export industries. It was to be developed in a multiple-nuclei sector city form. In the first 15 years, Luohu Central District was developed as its first urban center. In the 90's, according to its comprehensive plan, a goal was for the city to become a regional economic center in southern China, resulting in the creation of the second urban center – Futian Central Business District (CBD) in the latter 25 years. An epitome of 40 years of successful conformance to Shenzhen's development plan, Futian CBD was to become an administrative and cultural center, a transportation hub, and a market economy-based commercial center, all invested and developed by the Shenzhen municipal government.

With a land area of 1.54 sq. mi. and a direct linear distance of 1.24 miles from the New Territories of Hong Kong, Futian CBD is located in the heart of the city of Shenzhen. Of the six (6) operating rail lines serving the CBD, two (2) can access Hong Kong directly (Subway Line #4 and Guangzhou-Shenzhen-Hong Kong High Speed Rail). After September of 2018, it only takes 14 minutes to travel from "Futian Station" in the CBD to "West Kowloon Station" in Hong Kong. As a product of 40 years of planning and 30 years of construction, the CBD has successfully integrated to an administrative/cultural center and a transportation hub.

In 1980, the Futian CBD area was then occupied by the settlement of indigenous Gangxia villagers only. Farmland, river tributaries and streams, fish ponds, and lychee wood were over. After more than 10 years of on-and-off planning efforts, land banking and acquisition, comprehensive planning, transport planning, and adoption of detailed development regulations, the municipal roadway network construction was commenced in 1993. In order to expediate development of the CBD, the municipal government established the Office of Shenzhen CBD Development in 1996.

Futian CBD, Shenzhen. Photo courtesy of Yixin Chen

Through the process of several rounds of urban design and special project planning by international consultancies, the blueprint for the CBD Plan was gradually taking shape. In 2004, the six major public infrastructure projects invested by the government were essentially completed. Office towers of the first, second, and third generations were constructed. The overall framework of physical form for the CBD became more apparent. After 2005, over 10 financial enterprise headquarters were established here, and the regeneration effort of the indigenous Gangxia Village area was underway. Fortunately, the CBD was practically been led by the development of the financial industry. The overall gross floor area constructed in Futian CBD has risen from 322,966 sq. ft. in 1995 to 129,186,603 sq. ft. in 2019, reaching the original planning goals and resulting in excellent economic asset and tax revenue. Based on a development report published by China's Academy of Social Sciences in September 2017, the economy of Futian CBD is ranked first place among all CBDs in the country, with a GDP of $389.36 billion and tax revenue of $164.98 billion. This CBD is the good fortune of Shenzhen, as well as among the best and more completed implementation zones for CBD developments based on plans formulated in the earlier days of Mainland China.

Experiences gained from Futian CBD planning include:

1) Advance Planning and Accurate Positioning – The foot of Lotus Hill was selected as the future site of the center of Shenzhen Special District in 1980.

2) Be well-prepared for plan implementation for a major financial center by undertaking 3 phases of land banking.

3) Utilizing urban planning and design concept of central axis, forming a system of 1.2 miles of continuous linear landscaped open space.

4) Long-term vision and keen understanding on policies by the decision-makers – In 1993, sufficient capacity was reserved for future municipal infrastructure construction projects.

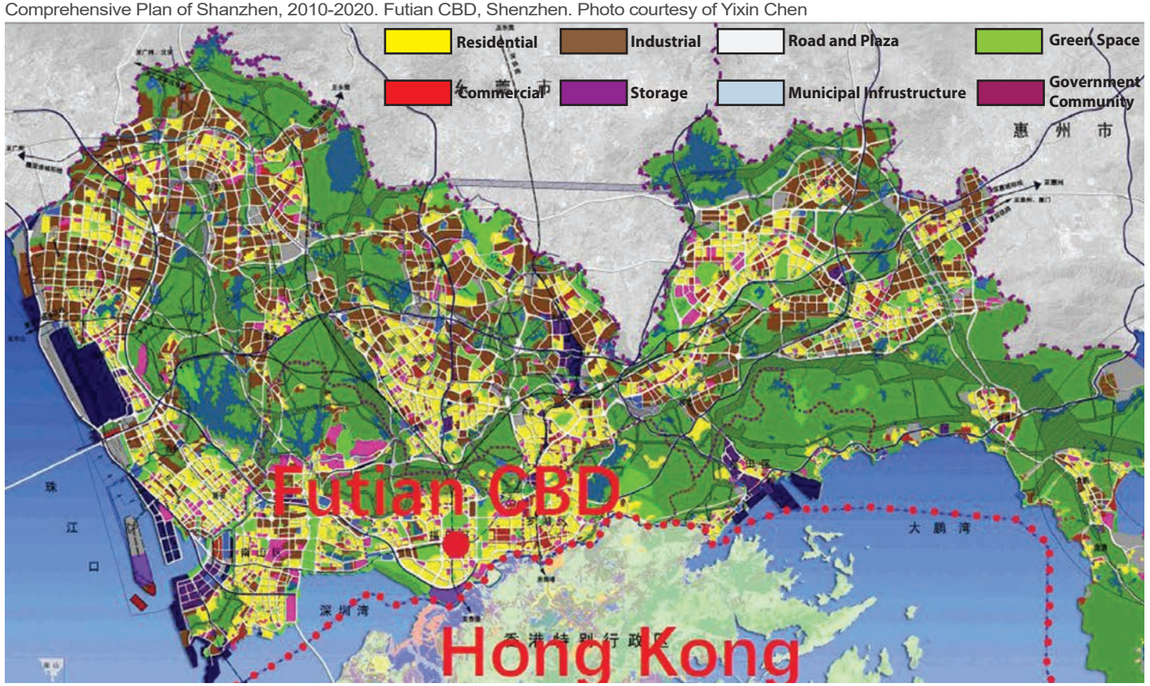
5) Priorities on rail, public transit, and pedestrians – Cutting-edge transit planning led to a system that separates people and vehicles.

6) Achieving a beautiful skyline for the CBD – From 1987, urban design work commenced for the Futian CBD, followed by several rounds of international consultation. Since 1998, "virtual city" technology was employed as a tool to manage and control development growth.

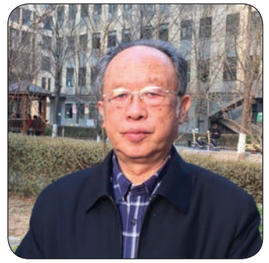
Lessons learned from Futian CBD Planning and Development include:

Due to premature utilization of the Public-Private-Partnership (PPP) model on the axial design concept, planning and design work could not be carried out in a single round as anticipated. This resulted in a disconnect between the northern and southern sections of the axis, a missed opportunity. Again, the planning and development history of Futian CBD has affirmed what Henri Lefebvre, a French sociologist and philosopher, stated: "Every society will form its own space. Space is political and strategic. By utilizing various strategies, space was established. We should track the footsteps of those strategies." ■ The article was translated by Raymond Lai, AICP, Director of Economic & Community Development, City of Decatur, IL

Comprehensive Plan of Shanzhen, 2010-2020. Futian CBD, Shenzhen. Photo courtesy of Yixin Chen



Tangshan, China



Jinhui Chang 常锦会

Mr. Jinhui Chang was the Director of the Water Quality Division at the Environmental Monitoring Station of the Tangshan Environmental Protection Bureau. He has more than 30 years of experience in environmental quality assessment and protection. Mr. Chang was among the first generation of college students in China. His education background is chemical engineering.

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This interview took place at Mr. Chang's home at Tangshan on December 23, 2018. It was the only interview in this Issue focusing on environmental protection, a highly interesting topic among APA international division members, according to an internal survey. Mr. Chang is my father-in-law. The interview was conducted in Chinese.

Jing Zhang: Could you tell us about your work?

Jinhui Chang: I retired two years ago from the Environmental Monitoring Station of the Tangshan Environmental Protection Bureau, where I was the Director of the Water Quality Division. Before that, I was the Director of the Air Quality Division. My job was to supervise the data collection for local environmental quality and to report it to the provincial headquarters and the Ministry of Ecology and Environment, formerly the Ministry of Environmental Protection. Specifically, I assessed local environmental quality and evaluated the performance of factories within the jurisdiction in terms of their impact on the environment. The jurisdiction of the Tangshan Environmental Protection Bureau has about 7.6 million population. Tangshan is a second level monitoring station. Provincial capitals and direct-administered municipalities, like Beijing and Shanghai, have first level monitoring stations. The first level stations make policies and rules for lower level stations.

For air quality, different techniques are used at different locations, depending on whether it is in a heavy industrial district, light industrial district, a commercial district, or a residential district. For water quality, rain water and sewage water are managed by separate networks. Rainwater directly flows into the river, while sewage water goes to a treatment facility before releasing into the river. Underground water is not sufficient for residential use. As you know, Tangshan is one of the national centers for coal, steel and concrete industries. In the past, plants and factories have had their individual access to underground water for industrial use, which caused aquifer water depletion. Currently, 70% to 80% of drinking water comes from surface sources and only 20%-30% comes from ground water.

One thing should be clarified for the foreign audience. I was a public institution employee, working in a specific technology field. Another type of government entity is the administrative institution, which is responsible to make policies and rules.

JZ: Could you tell us more about the monitoring?

JHC:The Ministry of Ecology and Environment has inspection teams doing random inspections. Cities, counties, and districts all have inspection teams doing regular inspections. Violations could result in fines, production suspension, media exposure, and criminal charges. The penalty also applies to local government, because of their negligence in supervising.

For new factories or plants, the policy is very strict for heavy industries. New factories need to go through a comprehensive environmental assessment process, including its fuel, raw materials, solid wastes, and emissions. Heavy industrial uses can only be built in certain designated areas and there are specific requirements on the factory scale and technology. Small scale plants are banned and low technology are not allowed. There is a cap on greenhouse emission for each region. Once the cap is met, certain plants are strictly prohibited. In addition, ecologic impact fees, previously called pollutant emission fees, are incorporated into taxes, and about 80% of the fees will be used to improve environment qualities in the impacted region.

"Violations of the environmental regualtions could result in fines, production suspension, media exposure, and criminal charges. The penalty also applies to local government, because of their negligence in supervising."

JZ: How do you ensure the data is accurate and factually reported?

JHC: There are many environmental consulting firms providing third-party evaluation services. Factories often rely on those firms to ensure their compliance with the national standard. Those firms risk their business license if they make a false assessment. On the government side, the environmental data used for monitoring is automatically sent to the authority. So inaccurate reading is unlikely. Deliberate interference with the data is a criminal violation of the law.

JZ: How is the balance between economic interest and environmental interest?

JHC: The central government places much less emphasis on the GDP growth at the local level, compared with the past. We adopted the 26 + 2 Policy about two years ago, which substantially limits the growth of heavy industry in the Beijing region. It includes 26 cities in Hebei province, including Tangshan, and two direct-municipalities: Beijing and Tianjin. Small scale operations of steel, concrete, and coal production are strictly prohibited in the 26 + 2 Region. During heavy pollution days, certain types of plants and factories are ordered to reduce production rates or to shut down completely. For example, I just received a message about a yellow warning for air quality tomorrow in the Tangshan area. For some factories and plants, it means that they need to take prescribed actions tomorrow. The city imposes private vehicle travel limits, prohibiting cars with even or odd ending plate number on the road. It is not for traffic congestions. It is solely for reducing gas emission. At the policy level, three bottom lines are set. They are for ecologic protection, environment quality projection, and natural resource protection. Each jurisdiction is required to develop a list of activities that are forbidden in the area to improve or maintain environmental quality. Plants that produce organic pollutants, like pharmaceutical and chemical industries are subjected to more strict environment scrutiny. ■

Patricia Booth

The view from the living room window at Mr. Chang's home. Photo taken by Jing Zhang in 2018

Kunming, China

Matthew Hartzell

Hailing from the San Francisco Bay Area, Matthew Hartzell's passions have long focused on regions, cities, the societies who inhabit them, and the maps and other tools that can be used to describe them. Matthew holds a bachelor's in history from Harvard, a master's in geography from Penn State, and a second master's in urban and regional planning from UCLA. His primary areas of interest within the planning field include GIS, urban design, transportation planning, housing, and international comparative planning. He has worked on consulting projects for UCLA, Los Angeles Metro, the Urban Land Institute, AECOM, and Chengdu Institute of Planning and Design, and the China Academy of Urban Planning and Design. Matthew lived off-and-on in China for much of the last decade. He is fluent in Mandarin and in written Chinese, and has more than 200,000 followers on the Chinese internet, where he writes about urban planning amongst other topics. Matthew has observed and documented the breakneck speed of development not merely in China's large, coastal metropolises, but in its smaller cities, rural hinterlands, and remote border regions, and the newly built connections between them.

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Mr. Hartzell is a member of the APA International Division. I read Mr. Martzell's articles on Chinese website, and discussed with him about planning and languages on WeChat. He is an amazingly knowledgeable in Chinese planning, culture, and language. Mr. Martzell serves as an advisor to the China Special Issue. It is a write-in interview.

Jing Zhang: In an American planners' eyes, what is special about China and the urban planning in China?

Matthew Hartzell: I think for anyone concerned with the state of cities outside US borders, some understanding of the process of urbanization unfolding in China is indispensable. More people live in cities in China than any other nation, but a more telling statistic is that a mere 30 years ago—within my short lifetime—China was still a rural nation. In a short span of time, hundreds of millions of people left their homes in the countryside and moved to ever-growing cities, a trend that shows no signs of slowing down. Some of my Chinese friends predict that not long from now, China's urbanization rate will surpass that of the United States. What kind of cities will future Chinese urbanites live in? What kind of environmental footprint will they have? These are questions with increasingly global implications, not only because China makes up such a large percent of the world's urban population, but because

Most of the China-based urban planning literature I've seen focuses on China's so-called first-tier cities—Beijing, Shanghai, Guangzhou, and Shenzhen. While these megacities undoubtedly are worthy of study, from an international comparative planning standpoint there's not much about them that's unique.

Whether it's absolute population, integration with the global economy, or soft power, China's first-tier cities share much in common with large metropolitan areas in the United States, Europe, and Asia. In my opinion, it's the second-tier and third-tier cities which really set China apart from other highly urbanized nations. It's these cities, which greatly outnumber the first-tier cities, where the vast majority of China's city-dwellers live. Cities like Foshan, Hefei, Kunming, Nanchong, and Zibo, with between five and ten million people each, would easily rank with amongst the big cities of other countries in population, if not name recognition

And why do these "smaller cities" (by Chinese standards, anyway) matter, you may ask? Well, for one, they are some of the fastest-growing cities in the world. The Chinese government, alarmed by what it perceives as "overcrowding" in its first-tier cities, is in the midst of a massive social engineering project to redirect population growth from first-tier to second- and third-tier cities.

The reality on the ground is that most Chinese would prefer to live in a first-tier city. While the second- and third-tier cities have an advantage in price, in amenities like education, health care, infrastructure, and recreation, they lag far

"China is increasingly exporting its brand of "urbanization with Chinese characteristics" to the world, from Africa to South America."

behind the first-tier cities.

For this reason, going forward it is essential that more attention is placed on improving the urban quality of life in China's less famous but still important second- and third-tier cities.

JZ: What are some preconceptions you had before coming to China, and were those preconceptions confirmed or challenged after you saw China with your own eyes?

MH: I had already formed images in my mind of what Chinese cities were like before I ever stepped foot in China. These were partly influenced by images in film and media, and by my study of history and geography.

If I could sum up my impression of Chinese cities with one word, it would definitely be "density." In retrospect, this impression was based on an unrepresentative sample of cities that are generally known outside of China (Hong Kong in particular). Today, having observed the reality on the ground in hundreds of Chinese cities, and having studied comparative urban density on a granular level, I can say that Chinese cities are not as dense as I thought they were. Not that there aren't dense Chinese cities, or dense Chinese neighborhoods. Hong Kong is one of the densest cities in the world. But Hong Kong is in a class of its own, with density many times greater than the densest city on the mainland.

Chinese cities are still denser than most American cities, but they're significantly less dense than cities in other Asian countries. As in most countries, urban form in Chinese cities can be characterized according to a density gradient, with higher densities found in the urban core and lower densities found in the periphery. Foreign visitors to Chinese cities can be forgiven for assuming Chinese cities are consistently dense since they will rarely find themselves outside the urban core, which is where most historic and cultural sites can be found.

In American cities, tall buildings are usually a sign of higher density. I was surprised to learn that in China this

"The Chinese government, alarmed by what it perceives as "overcrowding" in its first-tier cities, is in the midst of a massive social engineering project to redirect population growth from first-tier to second- and third-tier cities. While the second- and third-tier cities have an advantage in price, in amenities like education, health care, infrastructure, and recreation, they lag far behind the first-tier cities."

Luquan county, Kunming, Mar 20, 2012. Photo taken by Matthew Hartzell

"It isn't that Chinese and American planners don't agree on the fundamentals of good planning and design, it's that the institutional contexts in which they operate are so different."

correlation does not necessarily hold. The highest densities in Chinese cities are found in old residential neighborhoods in the urban core, where buildings date from before China's modern urban era and tall buildings are rare. Tall buildings, on the other hand, are ubiquitous in the newer, more peripheral urban districts, but they do not necessarily mean higher densities. The key to density in Chinese cities, I discovered, is not in building height, but urban form. The urban core is dense because its streets are narrow, its blocks are small, and its buildings are packed tightly together. When viewed from afar, newer Chinese urban districts appear dense with their rows after rows of residential high-rises, but up close the urban form tells a different story. The buildings are tall, yes, but they are widely spaced apart, with lush gardens in between, evoking Le Corbusier's "towers in a park." Overall density is also diminished because most newly constructed buildings are part of massive, self-contained apartment complexes, separated by broad avenues, vacant land, and other under-utilized space.

Finally, I admit that my mind's eye of China was of a far more traditional country than China is today. I pictured traditional Chinese architecture, ornate tile roof homes, stone arched bridges, streets filled with bicycles, and street vendors at every corner. All of these things can still be found in China today but they are a vanishing fast from the contemporary Chinese city. Instead, they are found in rural villages, or in special historic preservation districts or "old towns" maintained for touristic value. In the less than ten years I resided in China, I witnessed waves of modernization before my eyes: whole neighborhoods torn down and replaced with swanky new office buildings and shopping centers, brand new subway systems built from scratch, street fixtures updated with the latest in AI-enabled smart city technology, and streets full of bicycles replaced by streets full of automobiles.

JZ: What are some things that American and Chinese planners could learn from one another?

MH: Having gained exposure to both the broad strokes and nitty-gritty of planning in practice in American and Chinese cities, I think it's fair to say that the similarities outweigh the differences. Planners in both countries are concerned with many of the same overarching goals: making cities safer, more efficient, and more livable. They share a common toolset and vocabulary. Most of the theories and historical precedents I learned in planning school at UCLA are part of the typical Chinese planning education, too. After spending time in the Chinese urban context, most American planners would probably settle on a similar list of pros and cons, areas where Chinese cities outperform American cities and those where they lag behind. It might surprise them to learn that their Chinese counterparts are well aware of and probably agree on, those same pros and cons. It isn't that Chinese and American planners don't agree on the fundamentals of good planning and design, it's that the institutional contexts in which they operate are so different.

Both Chinese and American planners act in an advisory capacity to their respective cities' political leadership. They draft plans based on their expert knowledge but in the end, it is the political leadership that makes the final decisions. A major difference is that municipal government leaders in China are appointed by the central government in Beijing, while mayors and city council members in the United States are elected by the voters.

When making local planning decisions, Chinese city leaders' number one audience is Beijing, which dictates urban policy nationally in five-year plans, and which often imposes specific quotas and targets on individual cities. Every decision American city officials make, on the other hand, is filtered through the lens of local politics, as council members contend with voters, lobbyists, and what will help them get re-elected. As a result, China can often appear "over-planned," with whole new urban districts rising in the middle of nowhere, not because that's what local demand dictates, but because it fulfills a national five-year plan. American planning, in contrast, tends to be hyper-sensitive to local context, where development battles are waged lot by lot, and where planning efforts are often sorely lacking in regional perspective due to the balkanization of American metropolitan regions into dozens of competing municipalities.

Having seen the strengths and weaknesses of planning in both countries, I've often thought that in an ideal world there would be some happy medium in between. American planners are constrained by municipal boundaries that do not conform to the organic boundaries of urban metropolitan regions. If they enjoyed more of the cross-region power that Chinese governments did, American planners and regional leaders might be able to coordinate to address issues like air and water quality, transportation, economic inequality, and the spatial mismatch between jobs and housing that are clearly regional in nature. Likewise, Chinese urban planning and municipal governance would benefit from more context-specific planning and place-making. If Chinese city leaders paid more attention to the needs and concerns of their own citizens rather than national policymakers in Beijing, they could improving the standing of their cities while simultaneously strengthening social stability. In my experience, Chinese planners do reach out to different stakeholders during the planning process, but those stakeholders tend to be those with entrenched power—government bureaucrats and major corporations. Participatory planning is a major blind spot

Green lake park and musicians, Kunming. Aug 28, 2009. Photo taken by Matthew Hartzell

Working in the rice paddies, Dali, May 12, 2014. Photo taken by Matthew Hartzell

"Having seen the strengths and weaknesses of planning in both countries, I've often thought that in an ideal world there would be some happy medium in between."

in Chinese planning practice and an area where American planners could share much with their Chinese colleagues. Both Chinese and American cities face huge challenges over equity and social justice, and while American participatory planning does not offer a panacea, and often slows the planning process down, it does provide an example of how to proactively conduct outreach to those urban citizens whose voices were historically unrepresented.

JZ: What is your daily life in China like? How do you spend your spare time?

MH: My daily life in China has varied quite a bit based on where I am living and what I am doing at the time. When I used to live in Yunnan province (in China's mountainous southwest borderlands), I had a lot of free time, which I used to go on multi-day bicycle journeys through remote countryside. In a typical day, I might ride 100 kilometers, climb 2000 meters in elevation, and pass through dozens of small towns and villages. In each valley I passed through, I might experience different climates, observe different crops, and meet people from different minorities who spoke different languages and practiced different religions and customs.

These days I live in a major coastal city and while the terrain doesn't lend itself to adventure the same way it did in Yunnan, I still like to get out and explore every chance I get. My city is quite sprawling and difficult to explore if setting out from home by bicycle. However, taking advantage of the multi-modal transportation on offer, it's possible to cover a lot of ground. For example, I can take the subway to a stop I've never been to, then find one of the ubiquitous dockless bike-share bikes available to explore locally.

In my neighborhood, I enjoy eating out, where I can choose from many delicious regional cuisines. I also enjoy cooking at home, and the routine of buying groceries from the local wet market or from familiar street vendors. There are western restaurant and western ingredients for cooking if I need them but usually I eat Chinese food. When I meet friends, it's usually over a meal, or maybe KTV (karaoke). In Chinese-style karaoke, a group of friends rent a private room, so you don't have to sing in front of strangers, and you can sing as many songs as you like (they have a great selection of both Chinese and English language songs). For physical activity, my girlfriend and I like to play ping pong or badminton, and there a beautifully landscaped public park near my house and a network of riverside paths where I like to go jogging. Sometimes we make the trip out of the city to a nearby mountain for a weekend hike.

Singing in the park, Zhenxiong, Zhaotong, June 2, 2013. Photo by Matt Hartzel

JZ: What advice do you have for Americans who are interested in working or living in China?

MH: That depends on what they plan on doing in China. Urban planning jobs for foreigners are not exactly a dime a dozen. Most Chinese urban planners work for the government- or government-related institutes, which are off-limits to foreigners apart from exchange programs through universities. There are foreign consulting firms and design firms that have offices in China, but they mostly hire local staff. Typically, Americans who work in these firms' Chinese offices are those with significant seniority.

There are plenty of other jobs available to Americans in China, however, some of which may be related to planning, if only tangentially. Teaching is by far the most common occupation of Americans in China. Most teach ESL, but there are opportunities to teach more specific topics such as planning, usually at the university level. Some Americans also work as program coordinators, managing study-abroad programs for American students in China, some of which may focus on planning-related topics. Until recently, both international and Chinese-based NGOs were an option for planners with an economic development or environmental planning focus. Unfortunately, several international NGOs have been forced out of China recently, so there are fewer opportunities in this space. There are still some positions to be had with international organizations such as UN Habitat, the World Bank, and the Asian Development Bank.

It's important to prepare oneself for the language barrier and to emphasize the value of learning at least some Chinese. Although English is a required subject in every Chinese school today, the vast majority of Chinese people are not conversationally fluent in English. Americans should not expect to be able to get by with just English, as they can in most countries. English is common in 5-star hotels and in expat bubbles, but not in Chinese companies or organizations. Outside the major cities it is virtually nonexistent. Learning Chinese can seem intimidating, but it is actually not as difficult as one might think, and a little can go a long way. Of course, anyone who intends to stay or work in China long term should invest time learning the language. Dutiful students will find that one year is usually enough to reach a comfortable level.

Americans visiting China for the first time will inevitably encounter culture shock. That said, with the pace of globalization and modernization what it is in China today, the potential for culture shock is probably less than it was a few years ago, at least in the major cities. When it comes to the crossing the street, visitors should take caution. Many Chinese drivers do not yield the right-of-way to pedestrians. Bicyclists will be pleased to find ample bike lanes in Chinese cities, but they too should exercise diligence, as bike lanes are often occupied by motorcycles, rickshaws, and parked cars.

Finally, I cannot underestimate the convenience in my daily life of a smartphone loaded with Chinese apps. I use WeChat to chat with all my Chinese friends, and business associates, and to post pictures and stories, and purchase train tickets. My WeChat is also linked to my bank account, and I use it to pay for virtually everything simply by scanning a QR code. Literally everyone from street vendors to restaurants to landlords accepts payment via WeChat. There's simply no need to carry cash in today's China. Other indispensable apps include Meituan for discovering and getting deals at restaurants, and Baidu maps, which contains many features Google maps doesn't, and is excellent for finding your way around the city by public transportation. Finally, there's Didi Chuxing, the Uber of China, which provides stellar service at dirt cheap prices. Of course, a VPN is also a must-have if you want to access most of the American-based internet, such as Google, Youtube, Facebook, Instagram, Twitter, or the New York Times, all of which are blocked in China. Make sure you install one and buy a subscription before you come to China since you won't be able to once you're here.

Harvesting wheat, Shangri La, April 28, 2012. Photo by Matt Hartzell

Washington D.C. USA

William Aultman

William A. Aultman is as passionate about good planning and design as he is about travel and cultural gastronomy. After finishing his Bachelor of Landscape Architecture at Clemson University in 2002, William relocated to the Bay Area of California where he worked for local influencers such as Peter Calthorpe and Sim van der Ryn before returning to the east coast and Clemson to pursue his Master of City and Regional Planning degree. Following graduation with his MCRP in 2012, he accepted a yearlong contract with the Shanghai Tongji Urban Planning and Design Institute where he worked on a variety of large scale urban initiatives throughout China. Still wanting to work internationally, William began a contract position with Parsons Corporation as a Senior Urban Planner working on the 2040 master plan update for Yanbu Al Sinaiyah in Saudi Arabia, a strategic port on the Arabian Peninsula's Red Sea coast. Eventually returning to the states after almost three years of international planning and design work, William has settled in the Washington D.C. metro and manages the Land Planning department for Peterson Companies in Fairfax, VA. When he is not in the office or on site, William can be found playing guitar, browsing Reddit, cooking authentic Sichuan dishes, or traveling to new places both near and far with his fiancé, Amely.

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Bill is my classmate at Clemson University. He is a very persuasive person, then and now, and I see him as a model. I contacted Bill at the conception of the China special issue asking for his contacts in China. Bill introduced me to Mrs. Min Bu and Mr. Qiang He, who also appear in this issue. It is a write-in interview.

Jing Zhang: In an American planners' eyes, what is special about China and the urban planning in China?

William Aultman: I think to most westerners, what is special about China and its urban planning is the ability to dictate massive changes in the built environment through a "top down" approach as opposed to the "bottom-up" approach common in the United States and Europe. That, and China's 5000-year history!

JZ: What are some preconceptions you had before coming to China, and were those preconceptions confirmed or challenged after you saw China with your own eyes?

WA: For me, China represented "the unknown". I considered myself fairly well traveled and my father had done business in Asia when I was younger, so I certainly had preconceived ideas of what it would be like. The mystery is what made it so exciting and alluring. During my time there and putting preconceived notions aside, I learned most humans, at their core, are similar and once the basics of food and shelter are met, the nuances that define us culturally are really not that different from one culture to the next.

JZ: What are some lessons that American planners can learn from planning in China?

WA: The problem (and solution) is always bigger than any single one of us I think that realization, for me, was humbling and new as I tried to reconcile that with China's population density and sociocultural context. In a lot of ways, it is hard to get your head around the complexity of the problems, much less offer solutions. Therefore, in a sense, working in China really teaches critical thinking and context-based solutions.

JZ: What are the values that you think American planners can contribute to China?

WA: I think western planners can instill a bit more appreciation for collaboration, cooperation, and a "team-based" approach to the planning and design culture in China. I found there to be a lot of competition between workers within departments or studios that was often counter-productive, even though we all had the same goal.

JZ: What do you think are some of the strengths and weaknesses of the planning system in China?

WA: As I mentioned before, I feel the "top-down" approach to planning and design in China is its biggest strength. However, I also feel that is the biggest weakness as well. The level of power and priority leveraged toward any given plan, at any given time, is something a western planner could only dream of. Unfortunately, that often comes at the cost of never giving a voice to those the plan affects most, resulting in massive displacement and sociocultural dissolution.

JZ: How was your life in China? How did you spend your spare time?

WA: I was fortunate enough to be based in Shanghai, which is very metropolitan and culturally diverse. If I wanted pizza or a cheeseburger, I never had to go too far to find it. I am also very sociable and made friends, both western and Chinese, quite easily. I would go out in Shanghai and socialize on the weekends. However, the highlight of my time there was exploring China's unequaled culinary landscape. Spanning thousands of years and dozens of regions, it was truly something special, and definitely the most immersive aspect of Chinese culture I experienced. My language skills with Mandarin (and the other dialects I was exposed to) were not good at all. I found comfort and joy in sharing something good to eat even if I couldn't communicate as clearly as I would have liked. Everyone, from one side of the world to the other, loves good food.

JZ: Any advice for working and living in China?

WA: I think my best advice is that if you have the opportunity to work and live in China, do it! My life has been enriched in so many ways through my international work experiences. I would not be the person I am today had I not taken that leap. Be humble. Be curious. Be adventurous. When you get down to the essence of it all, you just might find out how similar and special we all are. ■ *Patricia Booth*

Setting sun in Shanghai. Photo taken by William Aultman

Editor's Note: How did I use WeChat

WeChat 微信

WeChat is a Chinese multi-purpose messaging, social media and mobile payment app developed by Tencent. It was first released in 2011, and by 2018 it was one of the world's largest standalone mobile apps by monthly active users,with over **1 billion** monthly active users (**902 million** daily active users). Described as one of the world's most powerful apps by Forbes. -- Wikipedia

I used WeChat to do the following things in China from December 12 to 24, 2019:

- *Text/Voice Messaging*
- *Share photos*
- *Share real-time locations*
- *Pay for hotels*
- *Order food delivery to my hotel*
- *Pay for street food and vending machine*
- *Pay in restaurants*
- *Pay in stores*
- *Pay for airplane and train tickets*
- *Pay for taxi and ride-hailing*
- *Receiving money*
- *Making an appointment at a police station*
- *Confirm ALL face-to-face interviews for the China Special Report*

Morgantown, WV. USA

Alexandra Stockdale

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Alexandra Stockdale, MS., CPM., EIT., is an engineer for the City of Morgantown. Alexandra thrives on fast-paced multi-million-dollar road construction, building construction and maintenance projects. She is a flood plain manager and specializes in permitting, targeting an open dialogue and a helpful attitude with homeowners, business owners, and developers to maintain Morgantown's economic success and attractiveness as a place to live. Alexandra is passionate about improving the lives of the City of Morgantown, one of America residents and employees. She works daily to advance her hometown's walkability and bikeabilty while making it more beautiful.

Alex is my colleague in Morgantown, WV. We talked about my trip to China when we were at a public meeting for a pedestrian and bicycle master. She mentioned her experience of studying in China as an engineering student. It is a write-in interview.

Jing Zhang: How do you see Chinese cities and urbanization from the perspective of an engineer?

Alexandra Stockdale: From the perspective of an engineer in the City of Morgantown with a population of 60,000, the scale of the transportation projects in China were riveting. When I visited, I spent the majority of my time in Xuzhou studying Engineering at the China University of Mining Technology (CUMT); Xuzhou has a population of about 9 million. The trip was truly provocative, igniting musings of one-day accomplishing the scale of the projects that I was seeing in China. The city of Xuzhou, and China in general, have such an amazing tax and population base that the obstacles of topography, land acquisition, and natural features become insignificant. A simple bridge over a creek here in West Virginia may completely cut the feasibility of a project with respect to budget constraints, whereas in China they will relocate a river.

I simply could not comprehend the amounts of concrete they were pouring to complete the sky rises and roadways. The urbanization of the Chinese cities was overwhelming. The chinese planners and engineers seemed to have some priorities that are different than the US. They place a large importance on the roadways and public transportation and education and allow the utilities, such as water, power, and sewer to take a secondary status in projects. The load on the housing needs, water, power, and sewer systems with an increase in population of 20,000 in Morgantown is taxing on our abilities over 5 years, whereas the City of Xuzhou was increasing by the 100,000s yearly. The chinese planners and engineers were not merely keeping up with the growth in terms of transportation, they were actually staying ahead of it and planning on magnitudes that we cannot comprehend here in the US.

JZ:Any interesting observations in China? What surprised you?

AS: With almost no idea what to expect beforehand I was astonished by the efficiency of the public transportation. I arrived by plane to Beijing and took the high-speed rail to Xuzhou. I do not speak or read any Chinese and was able to easily navigate the public transportation there. I used public buses to get to class and rode bikes in between classes to get from one side of campus to the other, as did everyone else. It seems that only the affluent use cars there and even then, not frequently.

There is a vast cultural difference with respect to health and transportation comparing China and the United States. The Chinese place an importance on exercise that was refreshing. The Campus at CUMT had outdoor basketball courts, tennis courts, gymnasiums, tracks, walking and biking trails, and sidewalks in plenty. They live in smaller homes and apartments than Americans, but you do not feel confined or crowded because there is plenty of space to get out and move and play sports. The Chinese planners designed the University layout around a healthy lifestyle where Americans plan exercise facilities and healthy transportation alternatives as an afterthought.

"They (Chinese planners) place a large importance on the roadways and public transportation and education and allow the utilities, such as water, power, and sewer to take a secondary status in projects."

The Chinese Government seemed to be exceedingly organized and accommodating. Their signage is in multiple languages, they have private areas for breastfeeding mothers, every place is ADA accessible. Their government seems to provide enough help but not too much that it enables people to be lazy.

JZ: What are some preconceptions you had before coming to China, and were those preconceptions confirmed or challenged after you saw China with your own eyes?

AS: Some preconceptions that I had before coming to China were that the country was trailing behind the United States. This was in some ways true but in most ways false. There was a considerable haze in the air from the smog and pollution in the city where I resided. China is behind the United States in respect to the environment and protection of natural landscapes and prevention of water contamination and pollution. The streams were exhaustively polluted with trash and sewage. In contrast, China is 50 years ahead of us in Public Works. Their roads are better, buildings are nicer, trails have more connectivity, public transportation is more reliable and the overall stance of city planning with respect to healthy lifestyles is more progressive than the United States. I also had a preconception that a mass population would mean mass chaos. It was the exact opposite. The Chinese Government seemed to be exceedingly organized and accommodating. Their signage is in multiple languages, they have private areas for breastfeeding mothers, every place is ADA accessible. Their government seems to provide enough help but not too much that it enables people to be lazy. ■

The Walmart near Zhejiang University in Hangzhou. Photo taken by Jing Zhang in 2018

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Virginia Cutchin

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Virginia Cutchin is an ***interculturalist***, and serves as speaker, consultant and trainer. She works in a variety of settings to raise awareness of, and appreciation for, distinct cultural preferences and their manifestations in business and social life. Born in the US, Ms. Cutchin has lived in Italy, the UK and China and has done business in Europe, Asia and the Middle East. She holds a BA in political science and an MBA in international business; and conducts trainings in English and Mandarin Chinese. Ms. Cutchin holds Employee Relocation Council (ERC) certifications in global mobility and relocation; and is a certified executive and health/wellness coach.Ms. Cutchin regularly interacts with Chinese students and professionals at James Madison University and Johns Hopkins University in the US; and South China University for Ethnic Nationalities in Wuhan, China.

I met Virginia in an environmental protection forum held by the Law School of West Virginia University five years ago. Mr. Cutchin speaks affluent Chinese and understand Chinese people very well. As a Chinese, I learned a lot about Chinese from her. This is a written-in interview.

Jing Zhang: As an international transition consultant, what is your general advice to American professionals who are interested in working in China?

Virginia Cutchin: I have found several things to be quite helpful – from my very first visit 20 years ago up to now: 1) I give myself time to realize which behaviors I experience are cultural, and which ones are personal. If I experience behaviors directed toward me but not necessarily by or to others, then that behavior is most likely personal. If however, I experience behaviors that seem more general in society than they are most likely cultural. 2) I identify and then reduce my culturally-relevant expectations and demands as much as possible: I don't know if people will speak English or not; if they will be polite or not; if they will be punctual or not; if they will be trustworthy or not; what constitutes "professional behavior;" how they will make decisions; if they will communicate directly or indirectly, with or without detail-orientation. 3) I take my behavioral cues from them: I do what they do, when they do it and how they do it. Only much later do I try to understand why they do it. 4) I avoid value judgments: I understand that we tend to judge ourselves by our intention, but we tend to judge others by their behavior. We cannot "see" motivation or intention.

JZ: What are Chinese cultural specifics that international consultants in planning and design should be aware of?

VC: The concept of "feng shui" (the wind/water principle of object placement in space to maximize positive energy and minimize/deflect negative energy) still influences planning and design in China. Also, efficiency: China has a huge population, and Chinese people all have to move around quickly and efficiently. Personal space in the American sense does not exist! The huge population has given rise to what from an American sense may seem like "every many for himself" without regard to one's impact on others' comfort, but in my experience, this is more related to efficiency and should not be considered a display of rudeness or disregard. This applies to everything from competing for available seats on a subway car to competing for top "gaokao" (university entrance exams) scores, to claiming R&D resources.

"I have found several things to be quite helpful – from my very first visit 20 years ago up to now:

I give myself time to realize which behaviors I experience are cultural, and which ones are personal.

I identify and then reduce my culturally-relevant expectations and demands as much as possible.

I take my behavioral cues from them. I do what they do, when they do it and how they do it.

I avoid value judgments. We cannot "see" motivation or intention."

Last, efficiency also includes the notion that everyone must feel useful, healthy and connected to others. American planners should provide spaces for creating a community (parks and shopping malls, for example where group exercise is encouraged), accessing nature (well-laid-out walkways, gardens, convenient internet or wifi accessibility, conveniently located waste disposal facilities), easy access to and operation of shopping facilities and good markets. City planners should provide bicycle paths and sidewalks so that people do not have to always drive everywhere. An infrastructure that actually simplifies travel would be very helpful in America. In the US there is great emphasis on the cost and return on investment of a project in evaluating its worth, rather than the comfort and convenience it would provide for those who it is actually designed to serve.

JZ: According to your consultant experience, what are the common misunderstandings about China?

VC: Many Westerners are intimidated by the powerful work ethic, and they misinterpret it as selfish, rude or opportunistic. Chinese people work hard for themselves (an expression of individualism) but much of their motivation is driven by a desire to play a part in China's success (an expression of collectivism.) Also, many foreigners assume that China's surprising and impressive economic growth means there is little morality or spirituality in the culture. They are wrong. Third, many foreigners don't understand that trusting, lasting relationships are built and maintained differently in China than elsewhere. Trust in China is built on emotion (affective trust), not on achievements (cognitive trust.) So building trustworthy, reliable and lasting relationships in China take much more time than foreigners may realize (or have the patience for!) Many American are also intimidated by the Chinese language so they don't even try to learn even a few phrases; instead, they expect people to be able to speak English!

JZ: How do you think about Chinese cities, as compared to American cities?

VC: There is a huge difference! In my experience – and I have traveled all over China as well as America – there is much more attention to the environment in China and especially tree planting. The Chinese understand that humans exist in and are part of the natural world; access to that world must be easy and often. There are massive growth and construc-

"Trust in China is built on emotion (affective trust), not on achievements (cognitive trust.) So building trustworthy, reliable and lasting relationships in China take much more time than foreigners may realize (or have the patience for!)"

tion in China but there is equal sensitivity to maintaining a harmonious balance with and respect for Nature. In this way, the government and industry cooperate to a much greater extent than I have seen in America.

In addition, many American neighborhoods lack sidewalks – a reflection of the reality that most people drive to where they want to go. Many cities even lack an efficient infrastructure, so that Americans have no choice but to drive. In contrast, I have experienced that most Chinese cities do have an efficient infrastructure, and there is a vast network of trains and buses that connect cities to each other. Bicycles as a method of transportation are common in China; but in America, they are more often considered a method of recreation.

JZ: China and the US have drastically different political systems and ideologies. How do you think about ethical issues?

VC: The American government and system are based on individualism, equality (in opportunity and responsibility), freedom (with accountability and respect for others) and self-reliance. In American people compete against each other; in China people compete against themselves or a common opponent.

The American ethical heritage contains a religious component – reliance on a God that has the power to intervene (for better or worse) in people's lives. One of the major struggles currently in America is between those who believe American government and society should reflect conservative religious values; and those who believe American government and society should respect and embrace all religious values – including the right to practice no religion at all.

Much of the American tendency to judge others is based on the extent to which those others are ethical: do they follow the rules of society? (no one should be above the law, receive preferential treatment, or accomplish their goals dishonestly); are they honest and trustworthy? Are they charitable? In China, I feel that most people are not religious but still are deeply spiritual, with a respect for Nature and a belief that harmonious self-reliance is a virtue. Materialism is a common pursuit in America. Lately, I feel also that many Chinese are also driven by the desire to accumulate wealth; and that possession of material items (a house, a car, and a good job) is the standard by which one's worth is evaluated. However, there are just as many Chinese people who rebel against such societal pressure and resist it – thus contributing to a cultural shift that not everyone agrees with.

In addition, many Chinese I have met respect their ancestors and their history, and believe they are part of a greater continuum. Most Americans cannot relate to this, but rather feel that they have "one shot at life." ■

Changsha, China

Mr. Qunli Zhang holds a bachelor's degree in architecture from Hunan University, China, and a master degree in finance from the University of New South Wales, Australia. As an architect, Mr. Zhang worked on several historic preservation projects in Changsha. Since 2016, Mr. Zhang has been the general manager of Kinglong Group, a manufacturer specialized in developing and manufacturing wear resistant parts for mining, recycling, and cement industries. He has long-term working relationships with corporations at home and abroad, including the Europe Union, Japan, and the United States.

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Qunli Zhang 张群力

Changsha, China

Mr. Hua Xiao is the Director of No. 2 Urban Construction Design Research Institute of Hunan Academy of Building Research Institute Co., Ltd. Mr. Xiao has 10 years of experience on a variety of projects including sports facilities, cultural centers, school buildings, business parks, and real estate projects. He believes that a good design comes from intuition and insight rooted in logical thinking and desires to create sustaining values. Mr. Xiao holds a master's degree in architecture from Hunan University and is a registered architect and a senior engineer.

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Hua Xiao 肖华

This joint interview took place in the dining room at Mr. Qunlin Zhang's home in Changsha on December 21, 2018. Mr. It was a casual talk while we were eating Hunan Spicy Hotpot. Mr. Zhang is my brother-in-law and Mr. Xiao is his classmate and close friend. The interview was conducted in Changsha dialect. The article was edited by Patricia Booth.

Jing Zhang: What are the big issues for urbanization in China?

Qunli Zhang: For me, a big issue is the conflicting interests between architects' obligation to clients and their responsibility to the public. Because of the high population density, urban land in China is very expensive. To recover the cost of land and make profit, developers seek higher floor-area ratios and maximized salable areas. This inevitably limits what architects can do to improve the public spaces and to pursue their inspiring designs. Compromises have to be made to accommodate the option best for economic returns, or at least, short-term economic returns.

For example, the original design for the Changsha Wangfujing Center, a commercial complex, had extensive public space with featured landscapes and architectural forms that are sensitive to local context. However, due to economic concerns, the project ultimately adopted an alternative with a rectangle structure to optimize commercial space.

Another issue is that we did not fully take advantage of the wisdom from tradicional Chinese practice. The core of that wisdom is human-oriented. It sounds obvious, but easy to forget. We have too many public squares that have no place to sit or play. I believe that a good urban form is at the human scale and shaped by people's behaviors, not by a designer's ideas. In Lijiang, Yunan province, there is a performance stage in a hundred-years-old plaza. The stage is not a fancy or expensive design, but it is used by local residents almost every day. There should be more spontaneously developed spaces like that.

Hua Xiao: My frustration is that many planners, especially those who do master planning, are lacking sufficient experience and knowledge to make good plans. Many times, ideas or strategies at the planning level come off the cuff. They are not feasible or are highly inappropriate, frustrating architects and engineers. And it is not uncommon that an architect has to amend the original plan before proceeding.

JZ: What kind of projects do you do?

HX: I did some school projects. There are prescribed design elements for schools: size and location of open spaces, the ratio of vegetation coverage, the dimensions of dropping off/picking up areas, and the number of classrooms. Those specifications are relatively flexible, as any changes to them are considered in tune with the public interest. For example, the capacity of a school, a key indicator for the educational resources of a community, is closely related to the number of classrooms. People may want 60 to 80 classrooms with a school which was originally assigned for 40 classrooms. So the extra classrooms have to come out of spaces from open ground, access roads, or green spaces. It is not easy, but doable. Residential projects, on the other hand, are very strict on such specifications.

The scope of many urban revitalization projects should be adjusted to meet the daily needs of local residents. It should be more than a decoration project, or, put it even more plainly, a wall painting project. We did a lot of exterior improvements to enhance the appearance from outside. But when it comes to improving the features that have the greatest impact on the users, we can offer little help because of the funding purpose or the scope of a project. Those features include adding an additional bathroom, installing elevators, and providing more seating and playing areas in public spaces.

Speaking of community revitalization, a community reform may be interesting to foreign planners. There are a lot of residential neighborhoods, most of which are gated and surrounded by walls, that were built by government entities or state-owned companies for their employees. Those residential units were sold to the employees at a subsidized rate, sometimes at no cost. The maintenance and operation of those neighborhoods, including utilities like heating, electricity, and water, are managed by those entities or companies. As a part of the scheme to optimize the state-owned assets, the government is transferring the responsibility of maintenance and operation to private real estate management companies. I did a project called Mingguo Changsha. It was to renovate a district built in the 1920s. This included upgrading the streets, refurbishing the buildings, and potentially new constructions. The developers wanted to use the existing stylish buildings to attract customers and to increase floor areas for commercial use. The government was concerned about historical preservation and the impact on the scene when people look at this area from Yeulu Mountain several miles away. (The project is located between Yeulu Mountain and Tianxin Pavilion, and regulation requires that no building can obstruct the view between the two places.) The strategy my team adopted was called "plus": adding more functions to existing buildings without changing its outward appearance from streets and from the Yeulu Mountain. We skillfully hid the expanded commercial areas and reinforced the conventional style the district has.

Minguo Changsha Project Street Section. Photo courtesy of Hua Xiao

Minguo Changsha Project Site Map. Photo courtesy of Hua Xiao

JZ: How will you introduce Chinese urbanization to foreigners?

QLZ: The Chinese government is currently self-correcting. In the past decades, we followed the United States model on car-oriented urbanization and highway systems. Indeed, people's lives were improved. The middle class in big cities is able to own one or two cars, and there has been a sizable increase in disposable income, as shown in the booming restaurant and entertainment business. However, congestion and pollution ensued. In recent years, we have been looking at European cities and learning urban redevelopment and public transportation. In addition, Japan sets good examples for high-density development, including underground space design. For example, Changsha has two subway lines, with an additional 10 lines committed. Some of them are already under construction. Public transit at this scale will render private vehicles unnecessary and less favorable for urban residents. Cheap, convenient, and comfortable public transportation brings a very promising future to urban life. ■ *Patricia Booth*

Shanghai, China

Xiang Zha 查翔

Mr. Zha is the Chief Architect of the Urban Planning & Architectural Design Institute, East China Architectural Design & Research Institute Co. Ltd. Mr. Zha specializes in large-scale commercial planning and design, TOD rail transit development, and public space design in mainland China. Mr. Zha also has extensive experience in historical preservation, commercial reuse, and urban redevelopment. He has published research papers and articles in professional design magazines, journals, and mainstream media. Mr. Zhe holds a Ph.D. in architecture from Tongji University.

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This joint interview took place at a conference room of the Urban Planning & Architectural Design Institute, East China Architectural Design & Research Institute Co. Ltd, on December 20th, 2018. This interview is very unique in that there were four front-line practitioners in the room, discounting me. It was the last interview for my China trip of this time. We went to a restaurant for a celebration afterwards. Special appreciation to Mr. Zha. Without him, I wouldn't be able to talk to Mr. Gao, Mr. Bian, and Mr. Lü.

Jing Zhang: What is your impression of today's urban planning in China?

Xiaojun Bian: In the past decade the emphasis was on speed. Planners did pay attention to integrity and comprehensiveness, but the planning horizon is rather short, like 5 to 10 years. Now, planning is more about quality, focusing on people-oriented design and urban details. Micro-Improvement becomes a trend. Cities like Shanghai are mainly planning for existing urban spaces. For the rest of the country, there is still room for urban expansion, especially in the fourth and fifth tier cities. How to do high-quality expansion is now the question those cities face.

For example, the floor-to-area ratio. Both the government and developers have been inclined to increase the development intensity by raising the floor-to-area ratio, as local government revenue relied heavily on land finance. But in recent years, many local governments, including fourth and fifth tier cities, are increasingly emphasizing quality, such as public space, quality of life, ecological balance, and green transportation.

A typical example is that more officials recognize the importance of a higher density of street networks in improving the livability of a community. More planners begin to question the big block development as well as some planning principles taught in the textbook written decades ago.

Dong Lü: I was a landscape architect and changed to urban planning. My foremost impression is the character of differentiation, which is reflected in two aspects. First, the different development stages of the cities in the eastern region and of those in the western region. The former

Shanghai Yuyuan Rd Corridor Re-Development

Photo courtesy of Xiang Zha

Shanghai, China

Jing Gao 高璟

Mr. Gao is the Deputy Director of Urban & Regional Planning Research Center, Shanghai Tongji Urban Planning & Design Institute Co. Ltd. Mr. Gao was a visiting scholar of National School of Architecture of Paris-Belleville. His current research topics include the development pattern of small towns in the Yangtze River Delta commissioned by the Natural Science Foundation of China, the planning guidelines for historical blocks sponsored by the United Nations Educational, Scientific and Cultural Organization. Besides research, Mr. Gao worked on projects throughout China. Mr. Gao is a registered urban planner in China and holds a Ph.D. in urban planning from Tongji University.

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is looking at quality enhancement, while the later is in the process of rapid expansion. In the Shanghai area, cities have already undergone major demolition and construction. Greenfield development is basically gone, and planners start to work on economic development, public participation, public service, etc. It gets very detailed.

Also, there are different types of challenges that the market presents. A few years ago, the government called for strengthening small towns to bring development opportunities for its surrounding areas. We did a lot of small-town planning projects which accelerated industrial agglomeration, absorbing a large number of human resources from rural areas. Now we are doing rural revitalization, the core of which is the industry. However, people have gone to the town, and villages find it hard to retain talent. This is a dilemma for planners. Big cities, on the other hand, are controlling their population. At the same time, they are competing for the talent to advance its economy. This type of issue is a new subject for our planners.

Jing Gao: China's urban planning discipline has developed rapidly, especially since 2014 when it moved from an academic branch to a first-level discipline. The number of practitioners and design agencies has significantly increased with a growing awareness of the urban planning profession in society. People hold city planning responsible for congestion, pollution, space quality, and many other social services. To some extent, the planning profession is getting stronger, while its social responsibility is growing.

Unlike calling for a nationwide economic development, the authority increasingly recognizes that different regions have different development goals and missions. The state has designated 24 ecological protection zones, requiring that maintaining the ecological environment is the goal for some areas. Meanwhile, human-oriented space design, such as the '15-minute living circle', is gaining momentum. the rural revitalization will continue to be a major topic in the planning profession.

Today, a major topic is how the function of planning is transferring to the Ministry of Natural Resources through institutional reform, and we expect that planning will be directly linked to ecological protection and natural resources preservation by integrating into

Changdao General Urban Design, Yantai. Photo courtesy of Jing.Gao

Shanghai, China

Mr. Bian is the Chief Urban Planner and the Vice Director of No. 2 Design Department of Urban Planning & Architectural Design Institute, East China Architectural Design & Research Institute Co. Ltd. Mr. Bain has 16 years of experience in urban planning and design. He managed projects across China, including Shanghai, Shenzhen, Hangzhou, Wuhan, Dalian, Nantong, Jiadin, and Zoushan. Mr. Bian is a senior engineer and registered urban planner in China.

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Xiaojun Bian 卞晓俊

a uniformed blueprint under the Ministry of Natural Resources. Specifically, the planning function is changing from reporting to one government sector to three sectors. We originally only dealt with the Ministry of Housing and Urban-Rural Development.

Now planning, especially regional planning, is under the Ministry of Natural Resources; architectural design and urban design are under the Ministry of Housing and Urban-Rural Development, and rural revitalization is under the National Agricultural Commission of Chinese People's Political Consultative Conference. Those changes will have a great impact on the entire planning industry.

JZ: In the previous interviews, I heard many good words about community planning in Shanghai. Could you talk about that?

JG: In Shanghai, the community planners are generally university professors, planning consultants, and other professionals who are interested in this position. The major tasks for community planners include improving public space and conducting micro-management. Compared with consulting firms, these planners have a deeper sense of belonging. They are more effective in communicating with local residents and have a holistic view of the community. They are responsible for operation and updating, as well as front-end design. In Shanghai, it is not uncommon that government-hired consultants work directly for a specific community, and social activists and social groups are quite robust. These factors contribute to the advancement in community planning in the area.

Xiang Zha: I did an urban renewal project for Yuyan Street in the Changning District of Shanghai, in close collaboration with neighborhood associations and the city's land-use department. The project was a 3.6 kilometers (2.2 miles) corridor with multiple purposes. The corridor included the main street, the intersecting roads, and entrances to the neighborhoods. We designed seating areas, plazas, street plants, as well as detailed building facade controls. We also recommended preservation strategies for the buildings of historical significance. Because many of the retail spaces are state-owned, the community has more control over commercial development. We identified a theme for retail along the street, outlining what types of stores are encouraged and what are not. Since its implementation, some non-compatible businesses have been relocated and some new stores opened. Urban design at this level is very exciting, as it touches people's life in great detail.

Shubo Blvd Corridor Design, Guiyang, China. Photo courtesy of Xiaojun Bian

Shanghai, China

Mr. Lü is the principal planner of No. 2 Design Department of Urban Planning & Architectural Design Institute, East China Architectural Design & Research Institute Co. Ltd. Mr. Lü's representative planning projects include urban and rural development plan in Changbai Korean autonomous county, Town Tourist Resort in Haimen City. Mr. Lü holds a Ph.D. from Shanghai Tongji University.

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Dong Lü 吕东

JZ: How is public involvement in the planning process?

XJB: There is a mandatory public comment period required by law, but effective public participation means more than posting information online. It is a very challenging area.

JG: New communication technologies, like WeChat, helps a lot. A few years ago, the owner of the Shanghai electric energy building repainted the building's exterior wall. This was discussed in WeChat and caused wide criticism. Scholars and community leaders stepped up, requesting the government take actions to protect buildings of cultural significance and that worked.

JZ: What should American planners know about Chinese planning?

XJB: In general, we have two types of clients: the government and developers. The former has an administrative agenda for the public interest; the latter is for a group's economic interest driven by market forces. Regardless of the type of clients, a plan cannot succeed without satisfying, at least, the basic interest of both. Government endorsement, not merely approval, is essential for a plan's successful implementation. On the other hand, a government's plan without support from developers is hard to get carried out. A key job for planners is to develop practical strategies based on a good understanding of the dynamic interplay between these two main interest groups.

JG: I agree. On the government side, it is also important to know where the red line is. That is, to know what is non-negotiable and what is flexible. It is always on a case-by-case basis, whether it be floor-area ratio, amenity requirements, mix-uses restrictions, and other policies to promote the public interest.

DL: Changes in local leadership also impact a plan. There are sustaining core policies, but different leadership brings different priorities. While a plan is honored by a succeeding leadership, its implementation schedule could be altered.

JG: When I was at the National School of Architecture of Paris-Belleville, I had a mentor who owns an urban design firm with an office in China. In the beginning, the office was directly supervised by its French headquarters. French planners and managers did most of the work. After a period, the Chinese office turned into an independent operation. Management and professional teams are now mostly Chinese. This is what I learned: 1) A foreign firm might find it difficult to get used to the extent of uncertainty in the planning and designing process in China. Constant changes of the schedule, the scope, or even the leadership of a project could frustrate foreign project managers; 2) Generally, foreign planners are often not comfortable with the scale of Chinese projects. Many plans cover hundreds to thousands of square miles; 3) The policies of approving agencies and their interplay with laws and regulations are sometimes confusing to planners, needless to say, foreign planners; and 4) The cost to keep foreign planners in a team is simply too high.

XZ: Since we have three practicing planners in the room, I would suggest a question about major challenges that they often face in their career.

XJB: Developing a convincing, implementable plan is not easy. A plan can go awry after adopting for all kinds of reasons. My challenge is to fully appreciate the complexity of the planning environment. To develop truly implementable plans is my goal.

JG: My impression is that everyone has an opinion about his or her city and the planning process has become more open and inclusive. To ensure the success of a plan, planners have to engage stakeholders of various sectors and to accommodate different, even conflicting, interests. A major challenge to me is the consensus-building among designers, local residents, developers, and approving agencies.

DL: For me, the biggest challenge comes from the uncertainty in the planning process, the market, the technology, and policies. Law required plans are relatively predictable, but they become less so due to the ongoing national institutional reform. For non-binding plans, uncertainty is the norm. I think planners who have a specialization in a narrow and definite field may have a better chance to find their feet in the fluctuating environment; or a generalist being able to integrate multiple fields, including land use, ecology, transportation, economic development, landscape architecture, and political science. ■ *Andy Read*

Editor's Note: Chinese for Planners

Basics

nǐ hǎo 你好 *Hello*	xiè xie 谢谢 *Thanks*	duì bu qǐ 对不起 *Sorry*	qǐng wèn 请 问 *May I ask*	shì ma 是吗？ *Right?*	shì 是 *Yes*	bù 不 *No*

wǒ 我 *me*	wǒ de 我的 *my*	nǐ 你 *you*	nǐ de 你的 *your*	kě yǐ ma 可以吗？ *Is that okay?*	kě yǐ 可以 *okay*	bù kě yǐ 不可以 *Not okay*

For Planners

zoù gōng 工 作 *work*	Shàng bān 上 班 *go to work*	xià bān 下班 *get off work*	jiā bān 加班 *overtime*	chū chāi 出 差 *be on a business trip*	tóng shì 同 事 *Colleague*
guī huà 规划 *planning*	jiāo tōng 交通 *transportation*	yòng dì 用地 *land use*	fāng àn 方案 *plan, proposal*	diáo guī 调规 *plan update*	xiū biān 修编 *amendment*
huán jìng 环 境 *environment*	tǒng chóu 统 筹 *master planning*	xiāng chóu 乡 愁 *nostalgia*	pǐn zhí 品质 *quality*	chéng shì 城 市 *city*	xiāng cūn 乡村 *rural area*
xiàng mù 项 目 *project*	zhèng fǔ 政府 *government*	xiǎo qū 小区 *neighborhood*	gài niàn 概 念 *concept*	jǐng guān 景 观 *landscape*	jiē dào 街 道 *street*

xiàng jiàn shū 项 建 书 *project proposal*	guī wěi huì 规委会 *planning commission*	chéng zhèn huà 城镇化 *urbanization*	Róng jī lǜ 容积率 *floor area ratio*	gōng gòng kōng jiān 公 共 空 间 *public space*
kāi fā shāng 开发商 *developer*	cún liàng 存量 *redevelopment*	zēng liàng 增量 *greenfield development*	tè sè xiǎo zhèn 特色小镇 *Characteristic town*	chéng shì gēng xīn 城 市 更 新 *urban renewal*

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Buenos Aires, Argentina, Photo by Andrea Leopardi on Unsplash

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